

File Room 60

THE

Desert

Post Office Box 100
Tempe, Arizona

M A G A Z I N E



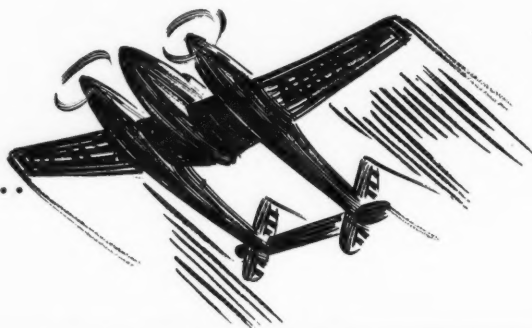
MAY 1949

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IF YOUR BATTERY
NEEDS WATER MAY
SAVE ITS LIFE)



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STANDARD



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DESERT Calendar

- MAY 1 Annual fiesta and spring corn dance, San Felipe Indian pueblo, southwest of Santa Fe, New Mexico.
- 1 Masque of the Yellow Moon, annual dramatic production of Phoenix, Arizona, schools.
- 1-2 Border university conference golf, track, tennis meets, Tempe, Arizona.
- 1-2 School music festival, Roosevelt, Utah.
- 1-2 Music festival, Elko, Nevada.
- 3 First annual Mojave Desert reunion, Perris Hill park, San Bernardino, California. Information, Celesta A. Lowe, 379 19th St.
- 3 Fishing season opens in White Pine Co., Nevada. Comins lake and Cave creek remain closed.
- 3 Ceremonial races, corn dances, Taos Indian pueblo, New Mexico.
- 3 Fiesta of Santa Cruz; performances of *Los Moros y Los Cristianos*, Santa Cruz, New Mexico.
- 3-10 Annual *Fiesta de los Flores*, Nogales, Sonora, Mexico. Gonzalo Guerrero Almada, chairman.
- 5 *Cinco de Mayo*, Mexico Independence day, celebrations in Spanish-American towns of the Southwest.
- 7-9 Veterans of Foreign Wars convention, Yuma, Arizona.
- 8-10 Annual convention, United Postal Employees of New Mexico, Hilton hotel, Albuquerque. J. A. Werner, Albuquerque postmaster, president.
- 9 Five-county school track meet, Huntington, Utah.
- 9-10 Sierra club members to hike up Snow creek, Mt. San Jacinto, to highest waterfall in Southern California. Mr. and Mrs. Russell Hubbard, leaders.
- 9-17 Annual wildflower show held by Julian, California, Women's club in Town Hall. Mrs. L. Botts and Mrs. Alice Blanc, chairmen. Free admittance.
- 15 Opening of general trout fishing season, New Mexico.
- 15 Feast Day of San Ysidro, patron of farmers, observed in many Spanish - American villages of New Mexico.
- 21-22 Uintah Basin livestock show, Vernal, Utah.
- 23-24 Tahquitz Rock, near Palm Springs, to attract Sierra club's rock climbers. Bob Brinton and Dick Jones, leaders.
- 26 Feast day of San Felipe de Neri; annual fiesta celebrated on following Sunday (31st) in Old Town Plaza, Old Albuquerque, N. M.
- 28-31 Annual Hellsdorado, Elks' frontier celebration, Las Vegas, Nevada.
- 30 Imperial Highway association meets at Mount Palomar, San Diego county.
- 30-31 Mt. San Jacinto to be climbed by Sierra club. Sam Fink, Santa Ana, leader.



Volume 5

MAY, 1942

Number 7

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RANDALL HENDERSON, Editor.

LUCILE HARRIS, Associate Editor.

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Desert Home

By JOE L. ORR
Los Angeles, California

Winner of first prize in Desert Magazine's March photographic contest is this picture of a cactus wren's nest in a prickly pear cactus plant. Taken with a 3 1/4 x 4 1/4 Auto Graflex camera, F22, 1/50 sec. Super Pan Press film.

Defense Housing

By HAROLD WEIGHT
Pasadena, California

This desert tortoise was photographed in a cave in the Black hills, Imperial county. It is winner of second prize in the current contest, and was taken with a 2 1/4 x 3 1/4 KW camera, 1/50 at F11. Superpan Supreme film.

Special Merit

The following photos were judged to have special merit:

"Palm Canyon," by Alfred Schmitz, Oakland, California.

"Trail of Fire," by Phil Remington, El Centro, California.

"Desert Trumpet," by Doris Priestley, Pomona, California.





Clinton Anderson examines the ore as it comes from the tunnel preparatory to the trip down over the tramway to the mill.

Gold for the Vaults of America

By HELEN ASHLEY ANDERSON

WE LIVE in the Funeral range, 2500 feet above the floor of Death Valley. Much of the time the wind blows like the mill tails of Hades. Looking down through a gap in the dry brown hills we feel like fleas on the rim of the world, and like fleas, about as helpless.

Our camp is an old one known as the Keane Wonder. Such buildings as time and the elements have been pleased to leave cling to the hills like grim death. In every storm they shudder and groan—and usually survive. But not always. Only a few weeks ago my house was torn to splinters, falling like a stack of cards off a table.

With the flying timbers went much of the household goods that had been brought in with mules, and my head is still sore from the two-by-four that struck me when the partition crashed in.

But life here in the hills above the desert is not all cruel or harsh or dreadful.

I must tell you about our sunsets and

sunrises. I think that over all the earth God spread some loveliness, and the hills, barren of vegetation are masterpieces of color — changing, eternally changing. Their gorgeous climax comes with the sunrise and the sunset, and then when the color has gone a quietness settles over all the earth like a prayer wherein beauty holds our hearts open to a thankfulness to the Master who gave it.

I came here from the great snow-mantled, green forested hills of Colorado, and the salt encrusted flats below seemed indeed, a Valley of Death. Vast and lonely it broods in its own silent way, blasting the hopes of wanderers who have come unprepared to withstand its heat and its terrible bigness.

To me, a stranger but a few months ago, the creosote bush seems the greenest thing in the desert, and the desert holly the most lovely, for its soft silver leaves and clusters of red berries are indeed beautiful. I was surprised to find so many kinds of cacti close at hand. Just now there seems to spring from every nook and

The day of the pioneer in the West has not entirely vanished. There is still gold in the hills—and the job of getting it out is no less a test of human courage and ingenuity than it was a hundred years ago. In her story of the reopening of the old Keane Wonder mine overlooking Death Valley, Helen Anderson has given an intimate picture of life in a frontier mining camp today.

corner some bit of green that blooms for a short while. This month and next finds the floors of bordering deserts a poem of flowers. They bloom with the eagerness of a life short lived. The earth is indeed lovely while they last. The flowers seemingly go on tiptoe to the edge of the wasteland, and stop, their loveliness soon fading into the dry, brown stalks of death, and finally crumbling into the hot sands that drift over them until the rains again release them so that they may grow and bloom another year.

I have wandered from my original story, so back to it now. It is not child's play, this reclaiming an old camp so that it will produce ore to be sent down on the tram car to the mill now being erected below.

Every bit of the material used in construction comes up on the backs of mules, or of men. Watching these men work under the merciless desert sun, I know the spirit of the American pioneer still lives. Men and women still suffer from heat and lack of water, just as they did in the early days of the West—but today's gen-

eration can take it, no less than the pioneers of an earlier period.

Eventually we will have a camp to be proud of, but just at present the less said about comfort the better. Water is our greatest problem. A sponge bath is a luxury we are permitted only once a week. I had almost forgotten what a real bath was like until I had the opportunity to go down to Furnace Creek inn.

Down there I saw the tourists "roughing it on the desert" amid fittings that probably are more luxurious than the furnishings in most of their homes. I'd like to have some of them up here in camp about four weeks—just to give them a little sample of pioneering as the old-timers knew it.

The Keane Wonder mine is a gigantic cavern with its roof and walls held up by natural pillars of rock resembling great toadstools. Beautiful streaks of quartz and sulphide seamed with ore that bears gold, lead, and silver thread the walls and roof of the mine. Thousands and thousands of tons of earth have been removed from the mine during former years, and tunnels are in a remarkable state of preservation considering the years that have passed since operations ceased.

During the Christmas season when the rains were heavy, tons and tons of rock came hurtling off the cliffs above one of the mine openings, and inside great slabs of rock fell down to mingle with the dust accumulation of the years. This must be cleared before the mine is in actual operation. It takes time and patience.

Our telephones were completed yesterday

so we have communication with the lower camp. It saves a lot of climbing up and down the steep trail. That was a happy event for my husband—since he usually was the one to do the climbing.

We keep fit up here by eating lots of salt. The heat and the wind sap the moisture from our bodies. Salt is the answer. The men eat salt and perspire until their bodies are encrusted with it. You would think they would never want to see another grain of salt. But it doesn't work that way. They crave it, because one cannot live on the desert without it.

Mother Nature seems to have anticipated all this, for the whole floor of the valley is crusted with salt. The water is salty—even the air is salty when the wind blows. So we in Death Valley are the salt of the earth—and we have the salt to prove it.

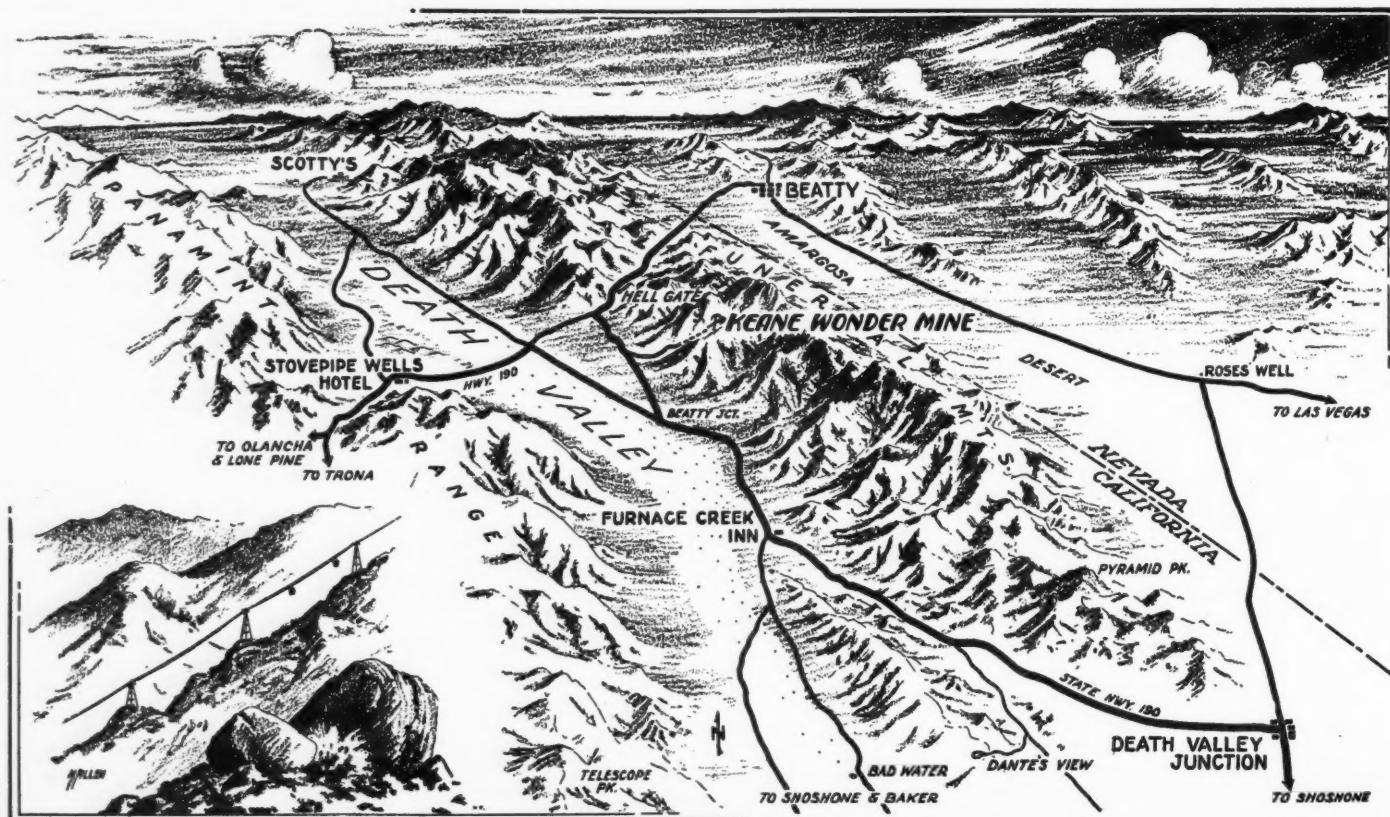
The wind is howling up the canyon like a thousand demons—it most always howls up here. From my window I can see the sand from the dunes below Stovepipe Wells winging in a tan mass across the desert. The blue Panamints rise above it toward a bluer sky dotted with white clouds that seem blissfully unaware of the disturbance below. Snow covered Telescope peak stands clear-cut and aloof above an impatient desert land forever changing contours because of the shifting sands.

There is gold in "these here hills" but some of it has been well hidden and the trails are hard to find. Those who seek it must live the hard way. What is a day without a bath? We have the years before

us. What is a day without the comforts of even a decent chair? We can sit on powder boxes. We have plenty to eat and a peace that is God given. What of the leaky roof over our heads? We'll soon have a house that is air-cooled, and book shelves where we can put the few precious books that we dared to bring from the outer world. Fortunately they were undamaged in the twister that took our house away.

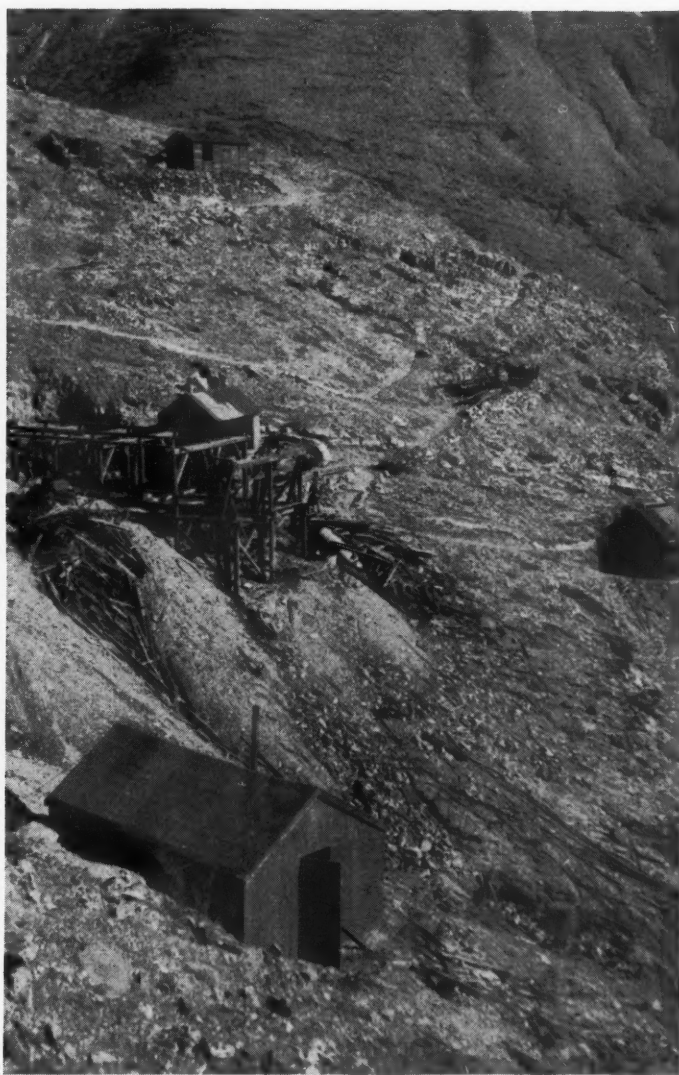
What of the long evenings without picture shows and parties which are so much a part of the entertainment of today? We have health and the lordly display of the stars in a far flung heaven and we have the quietness of real content when people have learned to live with themselves. We have the joy of blending the old with the new so that we glimpse the glowing paths of a future through the romantic "Portals of the Past." We have the desert and all that it implies, so we have much. Standing on a windswept hill with the colored desert before us, we plan the days and the months and the years, and if the fates are kind we'll bring forth gold for the vaults of America. If not, we'll have had the joy of a grand adventure in the land of a past romance.

The days, the weeks and the months fly by. It has been some time since I took up my typewriter, and in the meanwhile I have kept books, in fact, done everything from cook to run a motor! The pumps are in, the engines in place, as is the compressor, and the generator. The motors are humming away, and I can detect the clatter of wheels as the buckets travel up and down the cables with their loads of sup-





"The greenest thing on our desert is the creosote bush." The author here is seated beside one of the creosotes growing on the slopes of Funeral range near her cabin overlooking Death Valley.



Upper Keane Wonder camp in Funeral range. Bunk house in the foreground. Mine dump, upper tram terminal, tool shed and boarding house. The upper cabin was blown down in a windstorm.

plies, or ore. There is water in the tanks on the hill, and we have a new "community shower" as yet unregulated as to temperature, but we are hoping! Again man subdues, if he doesn't entirely conquer the desert's whims, and anyway, who would want to completely conquer so great a Teacher!

My eyes stray from the keys and I see the men, as one by one they pick up a load and start up the trail to the mine. My husband is there, and if my eyes do not deceive me, he has a load big enough for a mule. I make a mental promise that I will "bawl" him out when he comes in, but of course, I never do, for when he comes he has a lovely piece of yellow quartz, some new rock, or flower coming into bloom, and I forget all about it, which is just as well, because when Clinton has a job to do, he does it.

The tram brings in new treasures every day. There was the large range, and the

refrigerator. How the cook did appreciate that refrigerator! It looked strangely small suspended there in space as it rode the carriers to the top without a mishap. My heart sang out a glad refrain of victory!

I can see Death Valley shimmering in the sun as the salt creeps up the flat toward the dunes. The high hills keep their peace, and wrapped in the blue haze of eternal patience lend mystery to the desert landscape.

My thoughts are checked by the sound of a step. I look up to see Clinton in the doorway with a look in his eye that I have come to know. A couple of men are off. He is short handed and must run the tram himself, a couple of the buckets are off the line, and the cables are in the act of demonstrating the jitterbug; the new cook's belongings are strewn all over the bottom of the canyon.

"Would I mind going down to the terminal to help out with the signals?" I

would not. Wild horses couldn't keep me away! We work in silence for some time, and by then the buckets are on the line, the cook's things retrieved, and the cables persuaded into waltz time, so all is well once again. Clinton grins, and a man comes down from the mine to take over my job while I go up the trail to resume my small household tasks.

As I write, the quiet of the evening is upon us, and the Funeral range spreads away in sharply revealed contours. The sky flames to crimson and Salt creek takes on the same hue. The whole earth is a symphony of color, the day's work done and the engines still. The quiet deepens into that indescribable silence of the desert eve. High in the brown dry hills we lead a simple existence, and coupled with the toil of willing labor it is a satisfying existence. Life is good. There is nothing more to say.

Saguaro Land

By MRS. JOHN W. SEARGEANT
Cashion, Arizona

I walked alone upon a desert shore—
An olden shore that rims a passive land
Where giants stand for centuries—and
more—
And wait, serene, His whispered high
command.

It is a land of many yesterdays—
Yet holds in store as many more tomorrows—
Where one may tread the quiet pathless ways,
Forgetting haste and all the ills it borrows.

I walk beside the great saguaro trees
And feel the peace of their tranquillity,
But might I live and wear my thorns like
these
I'd ne'er attain such pure humility.

These hoary giants stand with arms on
high—
A prayer of peace, a patience calm and still—
Their solemn ranks breathe softly to the sky.
"All time is here—we wait but for Thy will."

CACTUS BLOOM

By IRENE BRUCE
Reno, Nevada

Hail to the radiant blooming cactus thorn,
Whose home is with the free and flowing sands!
The desert wanted gems, and you were born.
With gracious air you lift your dainty hands
To wave a friendly greeting to the sun.
Soft desert breezes fan your flaming face,
Until your full and glowing life is done.
In all the world there is no sweeter grace,
Than life and death in Freedom's virgin space!

ACROSS THE DESERT MILES

By LOUISA SPRENGER AMES
Mecca, California

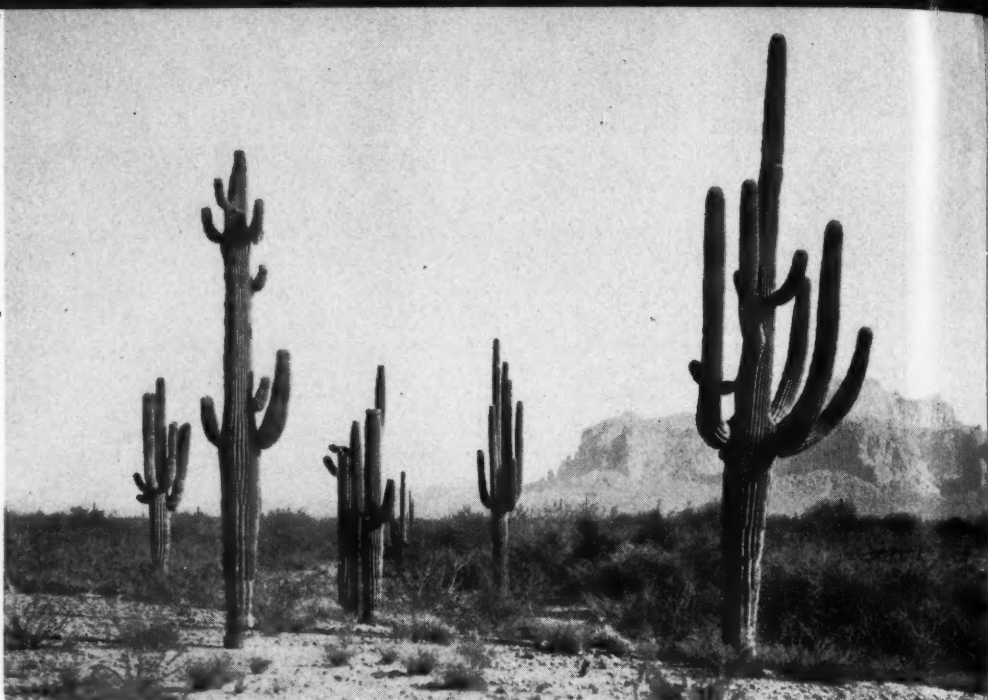
Bird calls to bird across the desert dark,
When sight is stayed and sound is doubly
sweet;
The answering call along the silence comes,
And weaves the feathered thread of love,
complete.

So calls the heart to kindred listening heart
Across the lonely stretch of aching space,
And threads the night with answering webs of
thought,
And splendid understanding's poignant
grace.

CANYON DE CHELLY

By EVANGELINE THOMPSON
Tucson, Arizona

Away from turning wheel, this gorge where
eagles cry,
Fierce deep-slashed beauty, piñon scented sky.
Here painted warriors rise in unweary review,
Their fiery heights against the arching blue.
As deep within a dream, the creeping river's
store,
Of red-stained sands follow the valley floor.
The dust from summer flocks drifts in the
mellow haze,
The Indian tends his patch of ripening maize.
When burning canyon rim has lost its day-time
fire,
Then falls the reverent hush of cross and spire.
With lonely bleat of sheep, the night bird's
haunting call,
Brown ones seek flimsy shelters by the wall.
Man shackled by his smallness, stands in awe,
Of ancient city lost in sandstone maw.
Unchanged, unchanging grandeur, wisdom bids
me stay,
In this red winding, time has lost its way.



DESERT GOLD

By RUTH D. POWERS
Brown, California

Men often say the desert is
The land that God forgot;
But He placed here many precious gifts,
That made it a treasure spot.

There are gem stones of surprising beauty,
Brown-green jaspers, fine in grain;
Rainbowed agates glow with color,
Precious metals on hills and plain.

But its finest gold is in the hearts
Of the people, who've learned to know
How to live with God, and their fellow man;
Their souls develop and grow.

For they cannot associate every day,
With such wealth as the desert holds,
Without taking some of it unto themselves,
And enriching their souls with its gold.

THOUGHTS WHEN CLIMBING THE SAND DUNES

By EMILY BEACH HOGAN
Lemon Grove, California

Up two steps and slip back one,
Bare feet buried in the sand;
It's worth it even if the sun
Is scorching hot, you understand.
Never mind if you're fat and forty,
Maybe you'll lose a pound or two,
Puffing and snorting because you're portly.
And can't go as fast as you used to do.

Up two steps and slip back one,
A horney-toad could beat this rate,
See the lizard scurry and run—
Well, being fat is just your fate—
You've reached the top panting and grunting,
You certainly look an awful sight!
But here, at last, is the view you're hunting!
Oh, ecstasy of sheer delight!

How grand it is to be lazily seated,
Yet you secretly plan for one more thrill,
When this moment of grandeur and awe is
completed,
You will roll like a tumbleweed down the
hill!

CREED OF THE DESERT

By JUNE LEMERT PAXTON
Yucca Valley, California

The sand is embroidered with purple
and yellow;
'Tis the Artist's annual display.
There's no charge for the show, (we
want you to know)
But pray do not take it away!

DESERT SKIES

By IRENE BRUCE
Reno, Nevada

An organ of almighty color plays
In silence to the firmament.
Man stands upon the desert brink, and sways
His soul to sing accompaniment.

THE MUSIC OF THE CAMEL CARAVAN

By HELEN WHITMER GARBER
Pittsburgh, Pennsylvania

Across uncharted miles of shifting sands
Their padded feet have trod for countless years,
The rhythmic music of their measured tread
Has caused a record of the joys and fears
Of wandering Arab peoples whose only bed
Is underneath the stars in desert lands.

And lonely chieftains in a thoughtful mood
Have sung of wars and battles lost and won,
Accompanied by the beat of camel's feet
Across the shifting sands since time began.
Through untold days of still and shimmering
heat
A saga of Nomadic solitude.

BLUE BOTTLES

By GRACE S. DOUGLAS
Burlingame, California

Blue bottles in the desert sands beside a
brackish pool
Where thirst-crazed men with bleeding hands,
clawed in the mud to cool
Their blackened lips. And in the drift of ashes
long grown cold
Blue bottles lie where pebbles shift, in gullies
drained of gold.
Blue bottles in the hills remote, still outline
graves where rest
The dauntless men whose life blood wrote the
saga of the West.

TO AN INDIAN MAID

By CAROLINE VAN DYNE
Los Angeles, California

Thou bronze child of nature
Dreaming thy years away,
Unheeding worldly covetousness
And dross of Life's short day.

Gentle thy mien and kind thy heart
And tender thy willing hand,
But deep the sadness which lies in thy heart
For thy people and vanquished land.

Their woes are thy woes
And their wrongs thy wrongs,
And their rights thy rights shall be.
May greed and oppression to earth be crushed
Forever for thine and thee.

From a remote hide-out in the desert wilderness of southeastern Utah, Polk and Posey and their band of renegade Utes defied the federal government for many months. But in the end these Indian warriors learned what other tribesmen of the Southwest already knew—that the white man always won. Here is the story of the last serious Indian uprising in the United States—an episode so recent that many of those involved in it are still living. Desert Magazine's story of this Indian war was taken from the files of the Indian Bureau in Washington.

Polk and Posey on the Warpath

By DAN THRAPP

ONE morning in the middle of May, 1914, the commissioner of Indian affairs in Washington read a telegram he had just received from Claude C. Covey, superintendent of the Navajo Springs Indian agency of southwestern Colorado.

Cortez, Colorado
May 14

Commr Indian Affairs
Washington DC

Body of Mexican found on reservation by Indians. Death result of gunshot wounds according to Indians. Testimony from circumstantial evidence that Mexican was murdered by Ute Indian now in Blue Mountains Utah. Wire instructions as to jurisdiction and what steps I shall take for apprehension of Indian.

Covey Supt

This message reported the beginning of a series of outrages, depredations, battles, arrests and escapes, which was to continue for seven years, punctuated from time to time by waves of terror which threatened the calling in of United States cavalry and ended only with the killing of one of the arch-leaders.

When the Ute Indians were discovered by the Spanish missionary-explorer Escalante, about the time of the first battles in America's war for independence, they were a warrior people, wild, roving, whose most deadly enemies were the Navajo in the south. They lived on the hunt, and on roots and herbs. Later as the white man forced his way into their territory, they and their cousins the Pahutes, were driven farther and farther back into the canyon-ridden recesses of an inhospitable land.

A country so poor could not supply enough game for roving, meat-eating fighters and the Utes became a lowly people, living for much of the year in brush and mud huts, subsisting on grasshoppers,

vegetation and to some extent, reptiles. As the whites gradually edged their way into this part of the West, a further change entered the life of the Indians. For the whites brought horses to ride and livestock to eat.

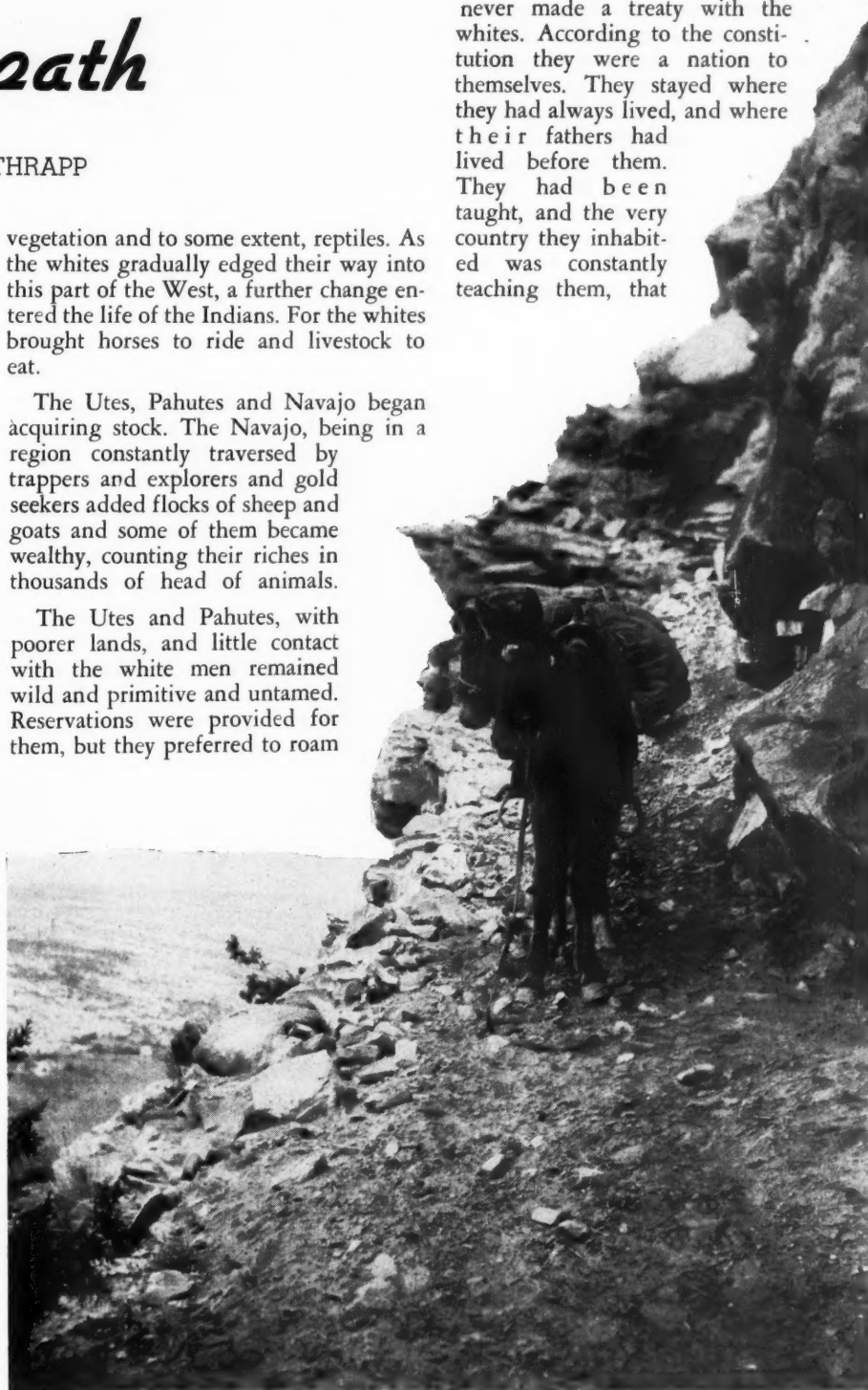
The Utes, Pahutes and Navajo began acquiring stock. The Navajo, being in a region constantly traversed by trappers and explorers and gold seekers added flocks of sheep and goats and some of them became wealthy, counting their riches in thousands of head of animals.

The Utes and Pahutes, with poorer lands, and little contact with the white men remained wild and primitive and untamed. Reservations were provided for them, but they preferred to roam

over the isolated plateaus and unknown canyons, far from government supervision. These roving bands were a constant nuisance to white stockmen and farmers. Even the traders had difficulty with them.

Fear of an Indian uprising led the whites to treat them with more than ordinary caution and encouraged the belief among these wild groups that here was a people inferior to the Indian and afraid of him.

The boldest of them became renegades, stealing stock, killing cattle, insolent, a law unto themselves. There was much to be said on their side, of course. They had never made a treaty with the whites. According to the constitution they were a nation to themselves. They stayed where they had always lived, and where their fathers had lived before them. They had been taught, and the very country they inhabited was constantly teaching them, that



Old Posey's get-away, up the east wall of Comb wash.



Comb wash, pictured from the west. This photograph was taken just south of Posey's get-away.

only the strong should survive. And so they existed, the bands of Mancos Jim, of Old Polk, of Posey, building an enmity among their neighbors which was to bring them ruin.

A few days after receiving the telegram, Agent Covey sent a written report including testimony from several witnesses to the killing. Couched in legal terms, Indians of the Navajo Springs reservation testified as follows:

"I, Ca-vis-itz' son, of lawful age, being duly sworn depose and say; that I am an Indian belonging to Navajo Springs reservation; that on or about March 30, 1914, I was going to my home from the agency and met on the road Polk's son; that Polk's son asked me if I had met a Mexican; that I told him I had and he then asked me how far ahead he was and when I told him the Mexican was not far ahead he said 'I am going to kill that Mexican.' I asked him why he wanted to kill the Mexican and he said the Mexican had a lot of money."

Even more damaging was the deposition of several young cattle herders:

"We, the undersigned . . . say . . . that on or about the 30th day of March, 1914, we were hunting cattle together on the plain below Ute mountain; that on that afternoon as we were coming back we came to a little point of a hill and heard three gun shots in rapid succession; that we then rode in the direction of the sound as rapidly as we could; that as we came up over the hill we saw a man pulling something; that when the man saw us coming he appeared to push the object he had been pulling over into a little arroyo; that he then jumped on his horse and rode

rapidly toward the agency leading another horse; that we were close enough to recognize this man and his horse; that he was a Ute Indian, the son of Polk, known to us as Tse-na-gat . . . that we then went over to where the Indian had been and saw in this arroyo the body of a Mexican; that the body was lying face up and the man was dead . . . that the reason we did not report the matter at the time was that the superintendent was away and we did not know what to do and that besides we were afraid of this Indian and his father as they are known as bad men, the father, Polk, having killed a number of Indians including two of Rooster's sons and that we now fear he will kill us for having told this . . . that Polk and his son have said that they would kill Indians or white men who tried to arrest them; that they are now wandering from place to place and the last report we had was that they had gone to the Blue mountains in Utah; that we are very anxious that these men both be arrested at once . . . (signed) John Miller, Harry Tom, and Walter Lopez.

It appeared to be an open and shut case. The problem was how to arrest Tse-na-gat—otherwise known as Everett Hatch or Pa-woo-tach—who, with his tough old father, had fled to the hills. Agent Covey sent a messenger to the Polks, father and son, who were living with the band of Mancos Jim in Allen's canyon, to induce them to come in and surrender. Strangely enough, the appeal nearly worked. Old Polk and his son mounted their horses and rode toward the reservation, but before reaching it their courage either returned or left them and they turned and fled. Covey then appealed to Washington to

have a warrant served on the Utes by a United States marshal.

During this time, Old Polk and his outfit were wandering over the countryside, not attempting to hide, secure in the belief that their threats would prevent any direct action to arrest either of them. A deputy marshal met and talked with them. He did not attempt to serve his warrant for fear it would arouse tempers and end in violence and loss of life. In Covey's opinion, the young man could have been arrested at that time and the whole affair might have been settled. Lorenzo D. Creel, special agent among the scattered bands of Indians in Utah, visited Tse-na-gat and was quite impressed with him. Although he considered the boy a rather mild fellow, he believed old man Polk was "an all round bad Indian." Creel estimated Polk's followers to number about 25 Utes and Pahutes at that time.

Trouble was smoldering just beneath the surface, but as the months went by it seemed that a flareup might be averted and that eventually the incident could be smoothed out. In the middle of February the following year (1915) a news item sent out by a press bureau gave the outside world the first hint of possible conflict. Cato Sells, Indian commissioner, wired Creel at Salt Lake City to proceed immediately to Bluff City, Utah, to confer with Marshal Nebeker with a view to obtaining an immediate arrest of the wanted men who now included, besides Polk and Tse-na-gat, Old Posey.

Little is known of Posey's ancestry. He has been called, on good authority, a Ute, a Pahute, and half Mexican, half Ute. His picture seems to bear out the latter assertion.

A flurry of telegrams reached the commissioner's office, starting February 21 when Creel wired the first news of a clash between Indians and the whites. Marshal Nebeker had organized a posse of 20 range-bred men and located the renegades hidden among the rocks far up in Comb wash. The posse surrounded the camp before sunrise. J. E. Jenkins, now superintendent of the Navajo Springs agency, told of the battle in this message:

Bluff Utah Feb 22, 1915

Commr Indian Affairs

Washn DC

Marshal and twenty two men appointed to arrest Hatch (Tse-na-gat). At Indian camp west of here Sunday morning posse surrounded camp. Indians opened fire killing one of posses men. Posse returned fire killing one of Indians. Battle lasted two hours. Indians located in rocks kept fire on members of posse during day. No further fatalities. Will have conference with Nebeker tonight and will give further particulars. About seventy possemen here. The situation is rather tense.

Jenkins Supt

According to a wire from Creel, the

posse scattered the warriors during the night, capturing some of them. The Indian leaders escaped, however. Some of them probably used Old Posey's "get-away" which, at that time, was unknown to the whites. Leading straight up the face of an apparently unscalable sandstone escarpment, 2000 feet high, it could have provided an exit for the whole band. More than once Posey had been chased up the wash and, for all the pursuers knew, vanished in thin air by using this hidden trail. It was this knowledge of the country and his amazing luck that made Posey dreaded by the law abiding and admired by the lawless.

But his luck led him to recklessness and in the end it dug his grave.

The law agents were not idle while Polk, Tse-na-gat, and Posey were making their escape. Jenkins kept in touch with Washington:

Bluff Utah Feb 23
Via Cortez Colo

Commr Indian Affairs
Washn DC

Situation here still furious. Citizens much alarmed and want government to take immediate action. Conferred with Marshal Nebeker. Very properly insists that warrants be served. Indians hiding in hills. Am endeavoring to get in touch with friendly elements of Indians and have them assist in affecting peaceable arrest of Hatch.

Jenkins Supt

Captured Indians were taken to Bluff City and held there under guard. During the night of the 23rd one of them attempted to escape and was fatally wounded. The possibility of a raid by the renegades on one of the nearby towns was not overlooked. Pickets were placed on guard



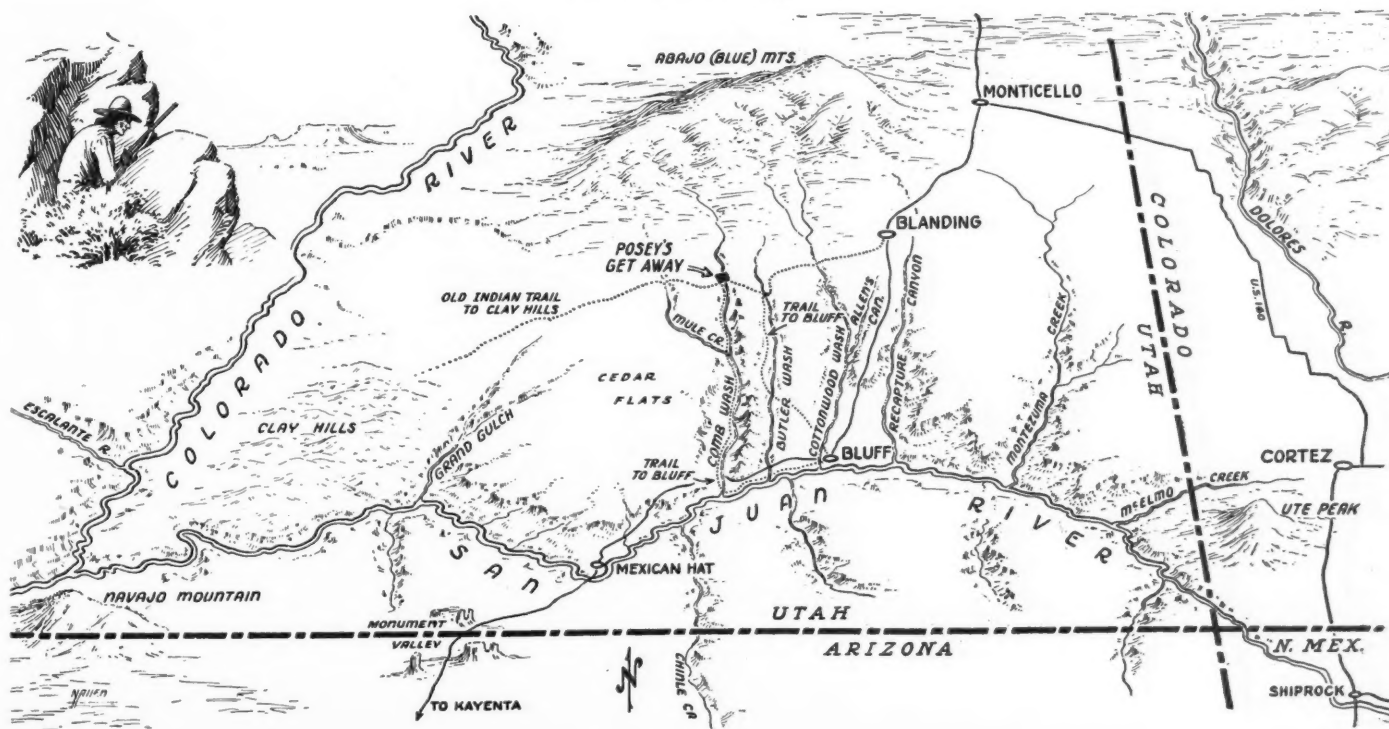
William Posey. Photograph courtesy Bureau of Indian Affairs.

throughout the region. Peaceful Indians were frantic with fear, believing they would be the first object of an attack by Polk and Posey.

The plight of the outlaws was not to be envied. Their horses had been killed—some of them for food, others dying from lack of forage. This was in the worst season of the year. Winter was breaking up into the mud and slush of spring, and the renegades, many of them barefoot, with little food, inadequate clothing, and no shelter most of the time, had lost some of the hardihood and ability to care for themselves that their more primitive forefathers possessed. But if the weather hampered the Indians, it was even more of an obstacle to the pursuers. Roads were impassable except to the horseman. Telephone wires, the few that existed, were cut by the Indians or borne down by ice and snow, making communication between the different law enforcement officers difficult and at times impossible. The whites had to feel their way about the country, whereas the Indians knew it like the proverbial book. It was as though they were trying to capture a covey of quail. Once flushed they were more wary than ever. It seemed impossible to corner them.

At one time the combined bands of Polk and Posey numbered more than one hundred persons, but the number was constantly being reduced by surrenders and inroads from weakness and exposure.

On February 26, Nebeker, Assistant United States Attorney Cook, Jenkins and Creel petitioned the attorney general in Washington to send a troop of cavalry as the only practical means of arresting the fugitives, putting them on the reservation, and keeping them there. Instead of the requested cavalry, Brigadier General



Hugh L. Scott was asked to go to Utah, take over the problem and work out a solution. He accepted.

In the meantime, the Indians had crossed the San Juan and entrenched themselves in an almost impregnable position north of the Navajo reservation. Here they waited for the final battle, a pitiful group of people fighting, part of them at least, for their lives.

A Navajo messenger from Creel to John Wetherill, famous trader to the Navajos, at Kayenta, Arizona, was fired upon by the Utes. Four bullets passed through his clothes, one of them through the letters he was carrying to the trader, but he escaped uninjured.

The first break came March 11 when Mrs. Wetherill, remarkable wife of the trader, who had the confidence of southwestern Indians as had no other person, wired to Commissioner Sells to ask what terms could be granted Polk and his son. It was largely through her efforts that on March 20 Tse-na-gat, Polk, Posey, and the latter's son surrendered to General Scott at Mexican Hat. All except Tse-na-gat were taken to Salt Lake City, tried, acquitted and returned to the Navajo Springs reservation subject to their good conduct and on their promise they would remain there.

Tse-na-gat was taken to Denver to be tried for the murder of the Mexican, Juan Chacon. This young Indian was a rather remarkable character. Tall, straight, of regular features and well poised, he impressed all who met him. In spite of the wealth of evidence against him he convinced General Scott, Agent Creel, and Jenkins of his innocence and they all worked for his freedom. There was much sentiment in his favor—a feeling that grew constantly during his confinement. In the early spring he was moved from the Denver jail to a hospital to be treated for acute tuberculosis, a disease he had allegedly contracted during the period when he and his people were being hunted. Excellent legal aid was appointed for his defense and he was acquitted on July 15, 1915, and returned to the reservation.

Old Polk, Posey, and their bands had promised to come to the reservation and settle down there. They were taken to the reservation. They stayed there just about long enough to smoke a couple of hand rolled cigarettes, draw a breath of fresh air, and get some ponies. Then they resumed their nomadic life, living in Allen's canyon, Hall canyon, and Comb wash, spending most of the time on the move or lounging in a general store at Bluff City.

It might have been possible to get them interested in raising cattle, had their range any value as cattle country—which it hadn't. There was no market for horses of the type they raised. There appeared no

solution to their problem other than to leave them as they were, keep them on the reservation under guard, or give them land on which they could subsist and make money without too much work. None of these things was done.

Some of the depredations by these outlaw bands showed utter cruelty. Cattle were found with their eyes poked out, beaten to death, and mutilated in other ways. Anything connected with the white man was considered fair game.

Posey seems to have replaced Polk as the leader of these outrages. Polk had passed the sixty-year mark, old Mancos Jim was in the December of his life, Tse-na-gat was more or less of a lone wolf. Posey, nearing 50, was at the height of his career. His astounding luck had led him to boast, after he had come through a shooting scrape unscratched:

"Me all same Jes' Christ. White man's bullets no can hit!"

This was an unhealthy attitude, but it was convincing and he was looked up to by his followers as a super man. There had been a falling out between Polk and Posey—at least on the surface—but either one could count on the other to give his fullest support in case of trouble with the white man. The situation was such that a climax had to be reached.

However, things muddled along until 1923 when, in the early part of the year, a couple of young bucks, Joe Bishop's Boy and Shanup's Boy, entered a sheep camp, booted the Mexican herder out, and proceeded to live off his provisions. Tiring of this, they left, well fortified with packs of mutton, oats, and other supplies, and returned to Posey's band. A warrant was issued for their arrest, but Posey refused to give them up. After several parleys it was arranged that the boys should come to Blanding and surrender to the sheriff there. Tried in the local justice court they were found guilty.

It was the intention of the court to pass a very light sentence upon these two boys—about 10 days in jail—but according to Utah law, six hours had to elapse between the conviction and the sentence. As it was noon when the trial ended, the boys were given to the custody of the sheriff. The trial had attracted Indians from near and far. Besides Old Posey's group, members of other bands were present, most of them standing outside the courthouse when the sheriff emerged with his two prisoners.

The boys could not have known what was in store for them or what sentence they could expect to get. If their consciences gave them any trouble at all it was because they had permitted the state to try them. Tse-na-gat had surrendered, but the white man's law had turned him loose again and why should they suffer more than he?

They glanced around the circle of spectators, here and there catching a glimmer

of recognition in dark eyes or a nod of the head from some friend. Here they were among their people.

Jail seemed most uninviting at the moment. The two boys stopped and refused to accompany the officer any farther. He attempted to drag them back into the jail by force. Joe Bishop's Boy snatched a gun sticking out of the sheriff's belt, broke free, poked the muzzle of the revolver into the sheriff's middle, and pulled the trigger.

The gun failed to fire. Three times the boy snapped the trigger, but the six shooter continued to balk.

As he felt the gun in his side, the sheriff turned Shanup's Boy loose, whirled, and grabbed at the other, but missed him. Both young men, now free, dashed into a crowd of Indians and dared the sheriff to come in after them. Blanding saw a novel western gun battle then, in which the characters were not bank robbers versus posse, but Indians versus the whole town. Shots were exchanged between bystanders and renegades, but no one was fatally wounded.

Ponies were waiting for the two fugitives and the entire group whooped out of town heading for the south. The sheriff loaded three or four men into a car and took out after them without waiting for a larger posse to form. About eight miles south of town a bullet crashed into the car, passing within less than an inch of one of the deputies. The ambush was well laid and the sheriff was forced to turn back to Blanding to recruit more men and follow the renegades on horseback. Trailing so large a group of Indians was not difficult and the pursuit settled down to a case of stalking the game.

Old Posey shot the horse out from under a deputy at a distance of half a mile. It was his first shot of the fight, and may have been luck, but even so it was quite a feat for a 30-30 carbine. None of the Indians, or the possemen for that matter, were marksmen, but in the running fight that resulted two more deputies were left horseless.

The Indians were not fighting blind. They acted in concert and retreated in orderly formation toward a high narrow plateau to the southwest of Blanding, a place difficult of access and seemingly easy to hold against a superior force.

Once on top of the plateau, the Indians settled down to what they fully expected to be a long drawn siege. Guns blazed away, bullets spanged off rocks, hats were punctured, and all the while the men of the posse were inching up the plateau.

Traps were laid for the sheriff's men, but they demonstrated they could learn from experience and none of these ambushes was effective. Toward the latter part of the afternoon, Joe Bishop's Boy



Pabute Indian leaders of Allen canyon: 1—Mancos Jim, 2—William Posey, 3—Elfego Bacca (not a member), 4—Joe Bishop Boy, 5—Posey Boy, 6—Dutchy, 7—Scottie, 8—Joe Bishop Boy, 9—Joe Bishop, Joe Bishop youngest Boy, 10—Johnny Peterson, 11—Johnny Cockeye Squaw, 12—Charlie (interpreter), 13—Jack Ute, 14—Bishop Boy, 15—Ajain Boy, 16—Johnny Cockeye.—Photograph courtesy Bureau of Indian Affairs.

leaned over a rock, squinted down his rifle barrel, lining a deputy in the sights. His finger tightened on the trigger when a bullet caught him between the eyes and completed his jail sentence forever.

Old Posey leaped up on a rock, brandished his gun, laughed derisively at the deputies and dared them to shoot him. They blazed away and he dropped from sight, to resume shooting in a more orthodox manner. Before dusk the plateau was surrounded.

During the night the posse alternately worked and stormed its way to the top of the mesa, but it was necessary to maintain the siege throughout the second day, although little firing was done after the first afternoon. Each side was wary of the other, but overwhelming numbers of whites decided the battle. During the second night, the Indians agreed to surrender to the posse. A tally was taken of the prisoners. Shanup's Boy was there. Posey's son was there. So was Joe Bishop's brother. But not a trace could be found of Posey. The old wolf had made his escape again.

The prisoners were taken to Blanding and put in a bullpen with others who had been captured earlier. They admitted, upon questioning, that Posey had planned

this break for two months and had gathered arms, ammunition, and supplies and stored them on the plateau for just such an emergency.

A large portion of the population of Utah is Mormon and always has been. It is one of the doctrines of the Mormon church, as laid down by Brigham Young, that the Indians are to be fed, not fought. A wiser policy could not have been followed, especially in the early days of the settlement of that region, but in the time of Old Posey it led to much trouble and some bloodshed.

What happened to Posey? How he slipped through the lines of the besiegers remains a mystery. Nevertheless he had escaped during the second night. The old renegade was badly wounded when he crept through the lines, but he made his way down into Comb wash.

Days went by and no word was received of the renegade. More than a month later a cryptic telegram received at Washington read:

*Attorney General
Washn DC*

Today secured body of William Posey. Found him dead in mountains near where posse engaged Indians. This is last of Indians for whom hold warrant. Other seven

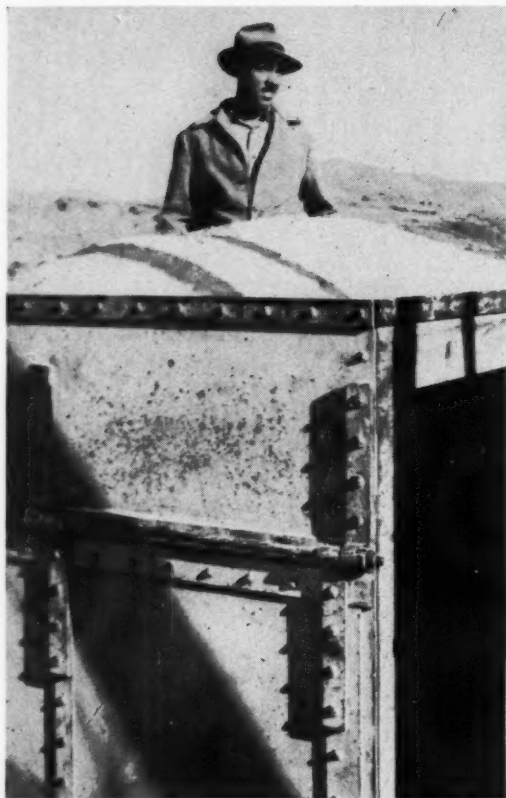
now in custody. Will return Salt Lake City twenty fifth.

*Ward
U S Marshal*

Old Posey had finally kept his rendezvous with death, but it took more than a bullet to stop him. When Ward wired he had secured the body of Posey, he meant that he had found him dead and seen to his burial. Members of Posey's band, however, and many of the citizens of Blanding and Bluff refused to believe the old devil was dead. A committee of three or four men from Blanding located the grave, exhumed the body, photographed and reburied it. They discovered that Posey had been shot low in the back and had contracted gangrene, from which he died.

And so passed the last of the warpath Indians in the United States.

Some time later, members of his band again unearthed his body, carried it far up Mule Creek canyon, which empties into Comb wash, and reburied it. And so he has lain for 16 years now, in a grave unknown to any but his closest and most loyal followers, a man forgotten to history, remembered only in the ever growing wealth of legend of the country of which he was so important a part.



Bill Whitehall — he mines Dutch Cleanser for western America.



1500-foot tram to the Seismotite mine.



Hugh Topp needs rain to help him harvest his crop of salt.

John Hilton accepted an invitation from the Trona Gem and Mineral society, and the Randsburg Lions club, to join them in a dinner and field trip on the Mojave desert of California. Eighty of the earth's ninety-odd natural elements are found in this region—and there are also some very interesting people there, as you will learn if you read John's story of his trip.

Opal Hunters in Last Chance Canyon

By JOHN HILTON

MY INVITATION read like an ad for a zoo. It said: "Come up to Randsburg, California, and join the Trona Rockhounds and the Desert Lions in a joint meeting at Cottage hotel."

It sounded interesting, and I wrote them I would be there. I had met some of those Trona rock collectors previously. Once when I was working at my blue agate mine in Death Valley an airplane flew low overhead and dropped a note at my feet.

"Trona mineral society coming to see you," the note read. Looking out across the floor of the desert I could see the dust of an approaching caravan.

A mineral society that sends its advance agent out in an airplane certainly is not lacking in imagination and initiative—and I found them to be just that kind of people.

My companions on this trip were Ed Ainsworth of the Los Angeles Times and Randall Henderson of Desert Magazine.

We arrived at the Cottage hotel late on a Saturday afternoon in March, and there spread out on a table on the veranda was Kent Knowlton's desert dinner menu. For years Kent has been gathering odd specimens of stone that resemble the viands of a delicious-looking meal. He has acquired the menu for a seven-course dinner. It in-

cludes T-bone steak, salad, vegetables of many varieties, celery and olives, cheese, sauce, cake, pie, and even after-dinner mints. Every item is a stone gathered from the Mojave desert.

But there isn't much nourishment in that kind of a meal, so we went into the dining room where Rose Worthington-Gibson—Mojave folks all call her "Worthy"—served a dinner that was no less appetizing in appearance than Kent Knowlton's—and tasted a lot better.

Among our many hosts were Paul Hubbard, publisher of the Randsburg Times, who had arranged the party, and Clark Mills of the Trona Argonaut. The bitter rivalry that so often exists between neighboring towns seems never to have reached Trona and Randsburg. Trona takes its wealth from the brine that underlies Searles lake. Randsburg lives on the income from the ore in the surrounding hills. They have much in common—nothing to quarrel over. Real desert people generally are like that.

The program included some of my kodachrome slides, and it was one of the most appreciative audiences I ever appeared before. Ann Pitkin, president of the Trona gem and mineral society, announced there would be a field trip on the following day—to Saltdale salt works in Kane dry lake, the Seismotite camp of the Cudahy Packing company, and the opal fields near Last Chance canyon.

After the dinner meeting Kent Knowlton took us over to his cabin. On the

floor in the corner of the room lay a pile of the commonest sort of boulders. When he turned the ultra-violet ray on them the transformation was instantaneous. These ordinary looking rocks burst into a dazzling mass of blue-white stars. Every "star" was a pinpoint of scheelite (tungsten carbonate). Kent's cabin companion had been out night prospecting with a portable lamp, and had gathered them in a nearby wash.

Randsburg is always an interesting camp. With old-fashioned false front stores, weather-beaten houses and twisting streets it represents a phase of the old West that is passing, and in some places has vanished entirely. The tawny hills scarred with great mine dumps tell the story of fabulous wealth that has flowed and still is flowing from the heart of the desert.

When I was 17 I went to Randsburg to see the famous mineral collection Kent Knowlton had in his pool hall. He doesn't have the pool hall now, but he is still a collector of rare specimens. Randsburg has grown much since then, but it never has lost the flavor of the old-time mining camp.

Next morning we joined the caravan of field trippers on the road to Saltdale. Here the Long Beach Salt company under the management of Hugh Topp is harvesting an average of 15,000 tons of table-salt annually. Salt dissolves in water, and yet paradoxically, the salt harvest here is limited only by the amount of the annual rainfall.

Topp is a veteran in western mining, and took us out to the dry floor of the lake to explain how Nature helps them operate the salt plant. When rain comes down from the hills and spreads over the lower

portions of the sink it dissolves the salt in the white-crusts mud. The brine thus formed is pumped to great five and ten-acre vats where eventually the water evaporates and leaves a crust of pure salt several inches in thickness on the surface. This is broken up and loaded on a miniature railroad to be taken to the mill for grinding. Final processing is done at Long Beach.

The wife of one of the employees at the plant has evolved an interesting hobby. She makes up wire frames of various shapes, immerses them in salt brine until a sparkling coating of salt crystallizes on the wires. Rock candy is made by crystallizing sugar in the same way. This suggests a novel Christmas tree decoration for desert dwellers who do not have access to the novelties sold in the stores.

Leaving Saltdale we took the winding road up Last Chance canyon—scene of much early day placer activity but now slumbering under the desert sun with nothing to remind one of its hectic gold rush days except roofless dugouts where some of the miners lived.

The many-hued cliffs and sculptured hills here are well worth the drive, even if there were no other attraction in this remote corner of the desert.

We stopped at the stone cabin of Mr. and Mrs. E. J. Holloway. Mr. Holloway works his placer claims in the hills and members of his family earn pin money by selling rock samples to visitors who come this way. They have beautiful specimens of fossil teeth, evidently from some prehistoric animal of huge dimensions. No one has been able to identify them, we were told.

We wanted pictures of the unusual fossils, and little Irma Jean Holloway who has been collecting rocks since she was big

enough to walk, obligingly posed for us with the strange teeth.

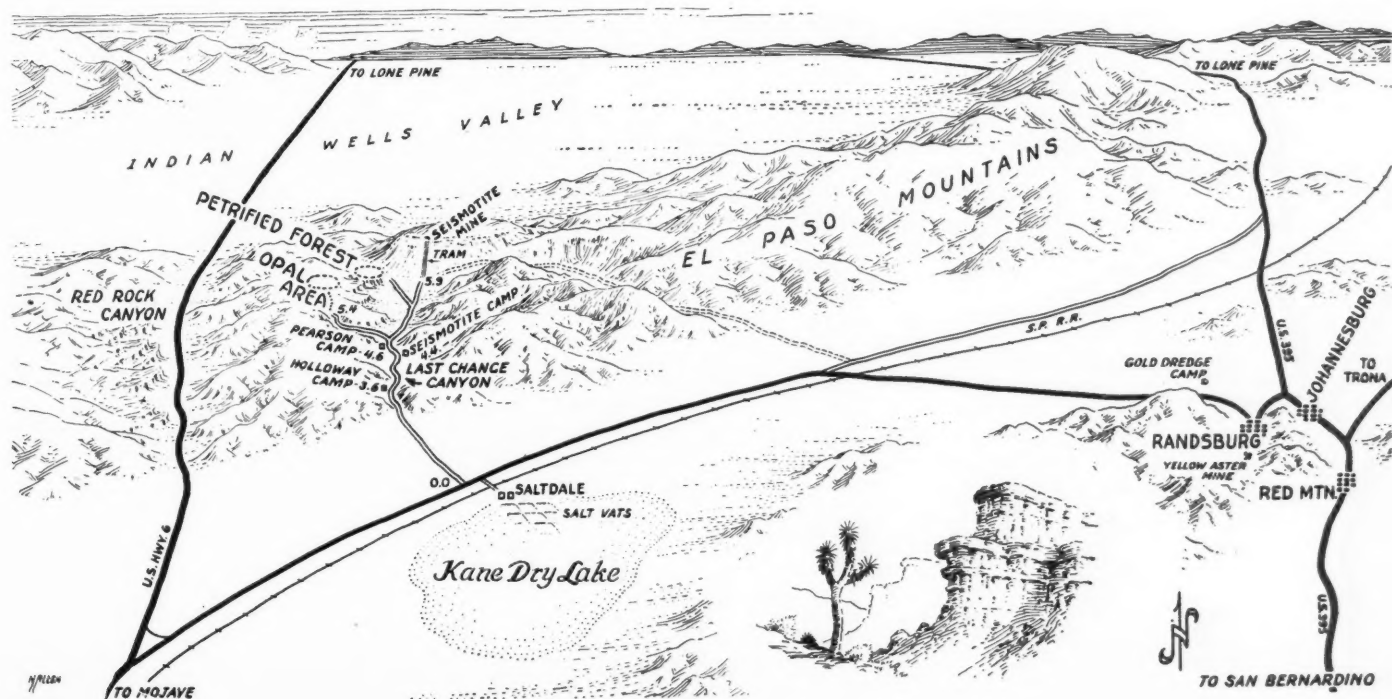
Farther up the canyon we came to the headquarters of the seismotite mine which produces one-third of the Dutch Cleanser used in the United States. Bill Whitehall, mine foreman, told us his company always has the latch string out for visitors, and if they care to climb the hill to the mine tunnels, they will be shown the underground workings.

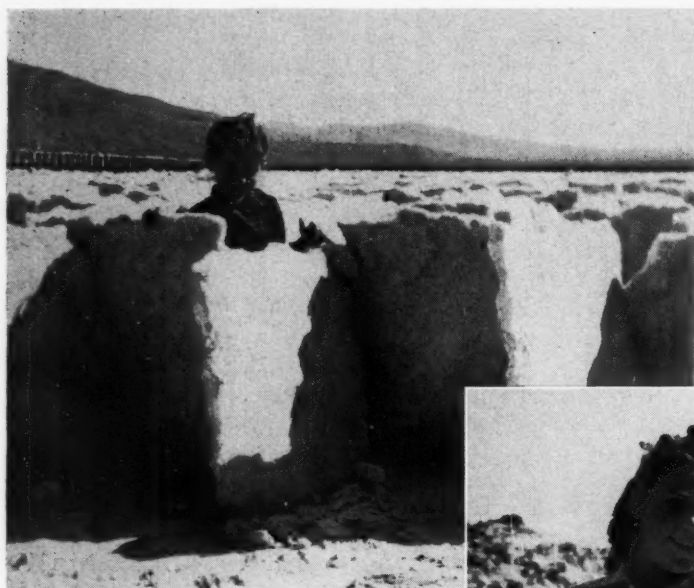
Mr. and Mrs. Whitehall showed us pieces of a great hollow log of petrified wood found deep underground in the seismotite deposits. The cavity was lined with chalcedony in a most beautiful pattern. At one layer in the cliff where the seismotite is mined they find petrified grain wood, and at a higher level palm wood.

Our caravan then continued up the canyon to the little shack from which Herman Pearson operates his opal mines. For a small fee he permits visitors to go on to his claims and gather their own gems. Just beyond his cabin in a narrow side-canyon we parked our cars and he guided us up the wash, over and around a series of dry waterfalls to the opal field. Herman said it was a half mile, but I do not believe he allowed for the ups and downs in making his calculation.

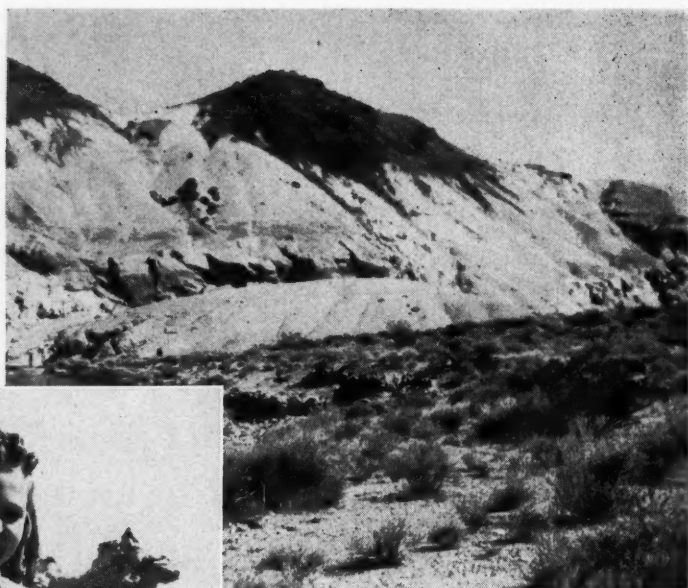
At any rate we eventually arrived there, out of breath and full of hope. His diggings are a series of potholes along the slope of a hill. The rock is similar to the matrix of many geodes I have found, and in fact there are places in the deposit where tiny agates and crystalline geodes rather than opal, fill the cavities.

The fire or precious opal is found only at a certain level. The remaining rock has either hollow gas bubble holes or small nodules of agate, calcite or various zeo-





Valerie Pipkin poses for the camera in the salt vat where the broken crust is stood on edge to dry before it goes to the mill.



This is the "Chocolate sundae"—one of the colorful rock formations near the Seismotite camp in Last Chance canyon.

lites, and about every known type of common opal. There is a great variety of minerals to be found in these tiny cavities, but a majority of the collectors are interested only in the opal.

Pearson has brought some beautiful fire opals out of this field. The gems, although small, are as brilliant and colorful as any I have seen from Mexico, Australia or the Nevada fields.

We soon learned the best way to get specimens from these diggings, with only a short afternoon to explore, is to sit down on a pile of opal-bearing rock and carefully sort out the pieces which showed sparks of fire opal. Then cross your fingers and get out your rabbit's foot, place the piece of rock on a large boulder and gently but firmly hit it with the prospectors' hammer. This seems about the only way to obtain the opals—and it has its surprises and its disappointments.

The gem quality opals are scarce. Obviously so, or Herman Pearson would not be opening his field to the hammer-hound fraternity. One may hunt for some time and break many rocks before finding one—and then inadvertently break the gem in two in the process of reaching it.

But, as Herman points out, a rock as big as your fist may yield a ten-dollar gem. So we kept on breaking and hoping. None of us found any of the \$10 specimens, but all of us found rocks worth bringing home. Our specimens were small, but the coloring brilliant. And as one of the Trona collectors observed: "If you look at it through a magnifying glass you have a hundred-dollar opal."

Ann Pipkin, president of the Trona club, found the choice rock of the day. The specimen was found in a pile of broken lava, and somehow had been over-



These are the strange fossil teeth found in Last Chance canyon by the Holloway family. This is Irma Jean—who knows her rocks.

looked by others. It was an eight-pound chunk of lava inlaid with a half dozen sparkling jewels, each about the size of a pea. No two were alike in color and character.

She wisely turned down all suggestions that the stone be broken in quest for a bigger gem inside. There may be an opal as big as a walnut inside the mass, but she is content to have the small gems so beautifully arranged in their black matrix—and dream of the precious gem that may be in the center of the mass.

From the opal field we drove to the foot of the tramway which leads up to the seismotite mine. The mine overlooks the petrified forest area where the Cowden brothers charge visitors a small fee for a personally conducted trip along a trail that leads to many interesting mineral outcroppings, including Southern California's best known field of fossil wood.

A good trail zig-zags up the face of the hill to the seismotite mine tunnels. It is a 1500-foot climb—just enough exercise to make you puff a little, and wish you were in better condition for hiking.

Reaching the top I walked over to the first tunnel entrance. It was barred with a wooden gate, and I was peering in trying to adjust my eyes to the darkness when there was a snort that almost caused me

to jump backward over the cliff. It was the mine mule, whose job it is to haul the loaded dump cars to the platform at the head of the tram.

Bill Whitehall took us on a personally conducted trip far back into the hill through tunnels of snowy whiteness. Seismotite is white volcanic ash which was found to be an excellent scouring agent. Bill loads out two cars of the mineral every week. It goes to the processing mill of the Cudahy Packing company in Los Angeles and emerges in cans with a label well known to every housewife.

I never have seen mine ore of such uniform consistency. Every blast brings down a carefully calculated amount of seismotite, leaving clean straight walls that hold without timbering. The only serious problem is dust—and this is solved with an electrically-driven air blast and the wetting down of the floor underfoot. Due to the insulation properties of the material, the tunnel remains uniformly cool summer and winter. There's enough scouring material here to keep the bathtubs and kitchen sinks of western America clean and shining for another hundred years at least.

I was reluctant to leave this place. The prospect of encountering one of those petrified logs in its snow-white matrix of seismotite makes this mine a never-ending source of interest to a rock collector.

We came away with a nice collection of mineral specimens, including a slab of that petrified wood for Ed Ainsworth's beautiful rock garden in Los Angeles. More important, we have the memories of a week-end of friendly association with some of the finest people on earth—the desert dwellers of the Randsburg-Trona area.



Baileya multiradiata.

Marigolds in Desert Sands

By MARY BEAL

LIKE flares of bright sunlight the Marigolds emblazon their desert habitat and happily for us they "ope their golden eyes" over wide-spread areas. So attractive are they that few can pass them by without stopping to pay tribute to their radiant grace.

Each flower-head (1 to 1¼ inches across) crowns a long leafless stem and consists of a rather broad golden disk encircled by a ruffle of numerous bright-yellow scalloped rays arranged in 3 or 4 layers.

The plant itself holds interest aside from its colorful flowers. It is garbed in very pale grey-green flannels, leaf and stem, with most of the foliage on the lower part.

A biennial or perennial herb 9 to 20 inches high, it sends up a few to several branching stems from a woody base. The soft felt-like leaves are cleft into short irregular lobes. The thin, toothed rays turn papery in age and fold down over the involucre, covering its many short bracts, which are very wooly and narrow.

It bears the imposing name *Baileya mul-*

tiradiata but even botanists are not averse to using the familiar name Marigold. You find these sunny blossoms in mountainous country, where vegetation is richer because of a more ample rainfall. However, they do not aspire to the heights but are content to remain at lower levels, foregrounding in charming coteries on the lower slopes and intermontane valleys, their bright heads lifted well above the low annuals of the variegated spring carpet. They are rather partial to the company of shrubs.

They grow in loose gravel or sandy soil, favoring gentle slopes and washes of the eastern Mojave, southern Nevada, Arizona, New Mexico, into Utah and Texas. Arizonans claim the Marigold flowers so readily you may find it in bloom at any season of the year.

It has a variety—*Baileya multiradiata* variety *pleniradiata*—which is classed as a distinct species by some botanists.

Baileya pleniradiata

Undoubtedly the commonest Marigold of desert areas. It is similar to the above but leafier and more branching, often

forming a rounded bushy plant 5 to 15 inches or more high, occasionally approaching 2 feet. Its flowers are smaller and its gold paler but it blooms with a sprightly profusion that often sets it apart and gives it glowing distinction. It is inclined to congregate in large numbers on favorable sandy stretches giving them the semblance of sparkling lakes of pale gold. The stems and leaves are clothed in a thicker coat of soft white wool.

The flower stalks are much shorter than those of its larger relative and somewhat leafy; the heads not more than ¾ inch across, with numerous clear lemon-yellow rays disposed in layers about a deeper-yellow center. It too has the praiseworthy habit of blooming in season and out of season, whenever encouraged by extra rains. Apparently it is an annual but is in no hurry to complete its cycle of existence. It grows in abundance in sandy soil over most of the central and eastern Mojave and Inyo deserts, northeastern Colorado desert, Arizona and New Mexico. It thrives in the sands about the extensive lava flows from the dead craters of Mount Pisgah and Amboy in the eastern Mojave.

Baileya pauciradiata

This species has quite individual characteristics. Its flower heads are very short-stemmed and smaller (½ inch or so broad) with only 5 to 8 pale lemon-yellow rays and lack the arresting radiance of the other *Baileyas*. It is the whole plant itself that kindles interest rather than the flowers—really quite a strange intriguing plant, its thickish stems and leaves so densely cloaked in silky white wool as to appear almost spectral. The flowers too have a wan look, with not a glint of luminous sparkle, the pale rays soon turning papery and reflexing, so they seem even smaller, as if trying to make themselves inconspicuous. A perennial herb 6 to 18 inches high, it branches loosely from the base.

The felty linear leaves (1 to 2 inches long) are alternate and rather widely spaced, mostly entire or sometimes irregularly or obscurely lobed. The flower buds are like puffs of silken swansdown, so heavily are they muffled in fine white wool.

Its habitat is in harmony with its own pale coloring—the sandiest of desert areas, where you find it a common species, in the Colorado and Mojave deserts and Arizona. Surprisingly it waits until summer to carry out its mission of blooming and is not the least bit stingy with blossoms—which is probably why the rays are so soon reflexed—to avoid the direct beams of the ardent sun and the equally ardent reflection from the glaring sands. I have found this *Baileya* particularly diverting in the Devil's Playground, hobnobbing with other sand-lovers in the coves at the foot of the high dunes that spread out for miles in a mountainous range near Kelso in the eastern Mojave.

How Not to Bog Down in Sand

(AN OPEN LETTER TO JOHN HILTON)

By CLYDE FORSYTHE
Sketches by the author.

Smoke Tree Ranch
Palm Springs, California

My dear John:

We came down here for a few days to rest—you know how it weakens a strong man to paint pictures steadily for three months—or did you ever work that long?

Well, last night as I sat before a mesquite log fire I got to thinking of that trip you took us on a year ago to locate the big lodestone for the Riverside county fair at Indio, and I shuddered in agony over the memory of how you got your jalopy stuck in the sand of that wash at the foot of Iron mountain, and how I pulled 16 ligaments loose helping push you out of it.

A wave of compassion swept over me and I said I would show you how to drive sand without getting stuck—and yet I somehow felt that the work of digging out was the only thing that saved you from growing up to weigh 300 pounds.

Lately, however, I have viewed with alarm the debate going on in Desert Magazine between advocates of the "jack" and the "shovel" as a tool for prying a car loose from sand, and I have decided to emerge from a long silence and divulge some valuable desert driving information which will make it possible for you to drive that old car up a wash as far as a burro can go—and you can get bigger and better boulders and not have to lug them so far by hand.

And John, I'm writing this more to enlighten the paid-up subscribers of Desert Magazine than just to help you out of your next mess.

The secret of driving in sand was known to a few of us desert rats back around 1916. It is not my own discovery. I learned the trick from O. K. Parker who used to drive the "Death Valley Dodge" around the desert in summertime as a demonstration stunt. He knew his sand dunes.

There were no pavements in the desert in those days and if you were not a sand driver you had to do a lot of footwork to get help when stuck.

If you have read this far, John, it means you really deserve to learn the secret—how a friend and I drove the first car in to Hidden Springs canyon and "discovered" it nearly 30 years ago.

We drove along the Southern Pacific tracks below Mecca at

midnight. In the sand dunes we bogged down to our hubs, put on our "blocks" and drove to a good camping spot in a wide arroyo and in early dawn went on up the canyon.

This is how you do it: You need both a jack and a shovel, but something else besides. You need "spring blocks." All makes of cars are constructed substantially alike in principle—chassis, springs, bumpers, etc.

You get stuck in the sand because when the rear wheels start to spin, due to lack of traction, they dig down and bury themselves. You put brush down to get out, and you get out, but more than likely get stuck again. An ounce of prevention being worth a ton of cure in a sandy wash, I will give you the prevention.

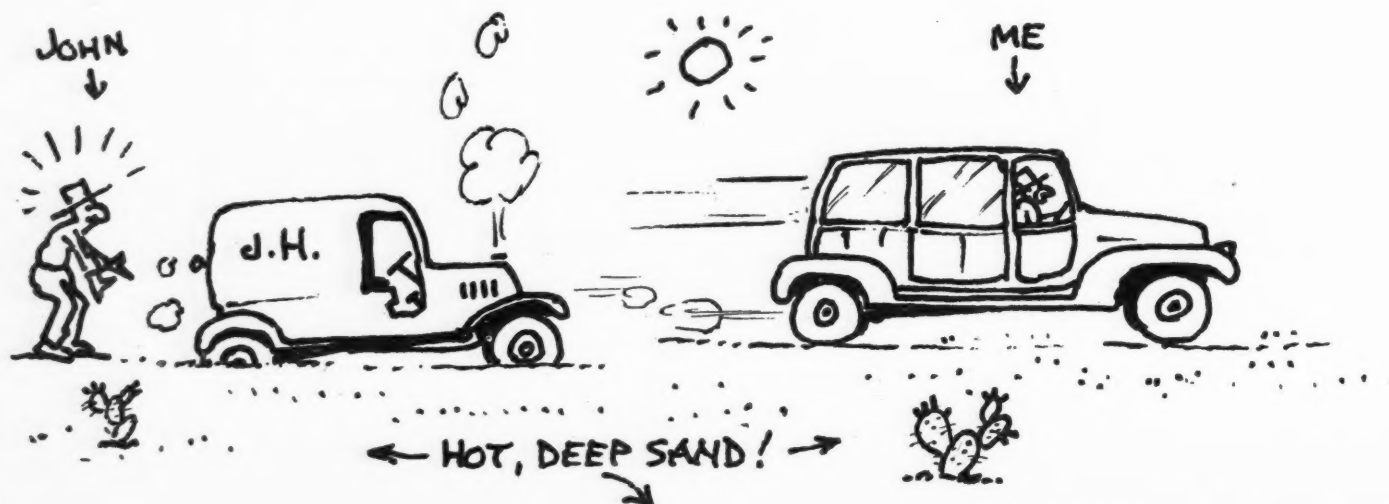
Put a jack under the rear bumper and lift the body of the car two or three inches. The wheels will remain on the ground. Now measure the distance between the top of the axle and the chassis frame. According to the way your car is built, you will cut two blocks of tough wood which will fit on top of the axle spring-clamps and under the steel of the frame above. Cut the ends of the blocks to accommodate bolt-heads, rubber bumpers, etc., and fit some straps or wire to keep the blocks in place. Then take the jack away and the weight of the rear body rests on the blocks. Your springs are now useless as springs, and the old jalopy will ride like a bronco, but it will sure ride the sand. With the springs out of action, the rear wheels cannot jump up and down and dig in.

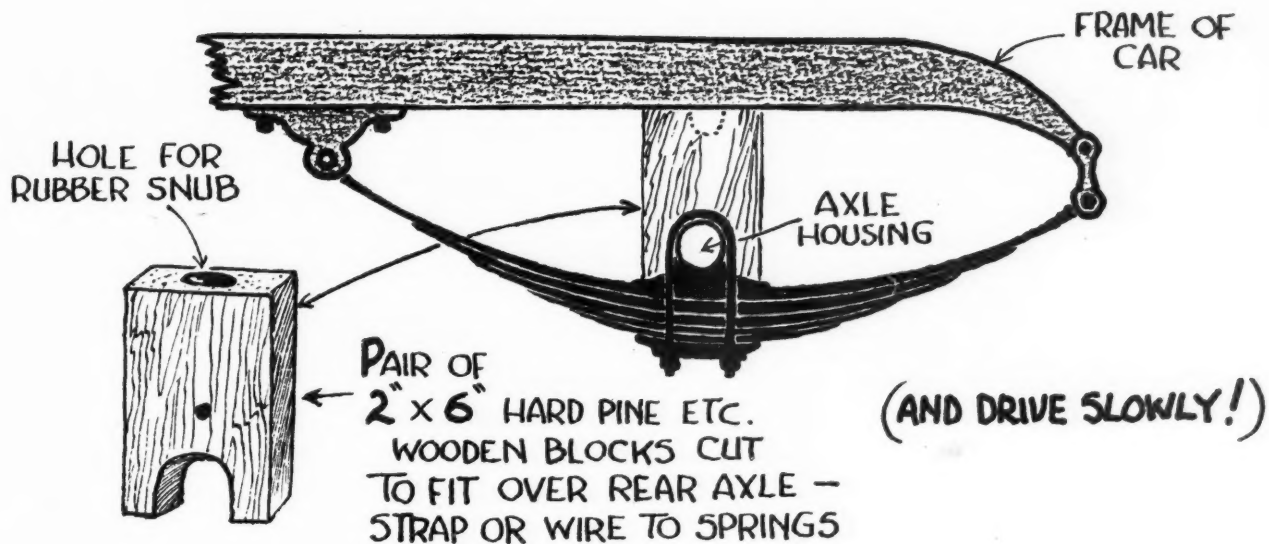
Car owners will have to use their own judgment as to making the blocks, and most modern cars are hard to get under, they are built so low. I advise going ahead on foot to inspect suspicious looking sand, and installing the blocks before going into it. It's so much more fun to put the blocks in on flat ground than when you are down to your hubs and have to dig a tunnel to crawl into.

Driving in sand today with spring blocks should be far easier than in the early days due to the big fat tires we have—if any. My old 1916 Dodge tires had little width of tread but she went on through.

And now, John, I hope a lot of desert rats will profit by this letter to you. If you can find the time to make some blocks for your old rock-hearse it will save you untold agony on your rambles. I always read your stories in Desert and it grieves me to learn that you have trouble going up washes.

Some day soon let's take our sketch boxes and go on a trip to—





gether in the sandy wastes and I will give you a lesson in sand-driving—using your gasoline and tires. Bring your guitar.

Yours truly,
CLYDE FORSYTHE

P. S.—Out at Dave Hand's ranch on the Mojave desert last Christmas. I got my station wagon stuck in sand and he had to pull me out with a tractor. Me, the sand expert!
—C.F.

ARIZONA SCENIC AREAS YIELD BIG REVENUE

The interior department received fees totaling \$155,607.80 from visitors to Grand Canyon national park and seven national monuments in Arizona during the fiscal year ended June 30, 1941.

The report was made by Newton B. Drury, director of the national park service, to the house appropriations committee at hearings on the 1943 departmental appropriation bill.

The break-down:

Grand Canyon, \$123,803; Petrified Forest, \$24,153; Casa Grande, \$2,800.88; Chiricahua, \$73; Montezuma Castle, \$897.24; Organ Pipe, \$10.36; Saguaro, \$1,785.16; Tumacacori, \$1,785.16.

Total revenues of the service in 1941 were \$2,179,119, the highest in history, Drury said, adding that 21,050,426 visitors flocked to 164 units of the park service for an increase of 174.5 percent over the 1935 travel year.

The park service administration covers 164 units, including 26 national parks, four national historical parks, 82 national monuments, 11 national military parks, seven national battlefield sites, 12 national cemeteries, one national recreational area, eight national historic sites and nine miscellaneous memorials.

Sez Hard Rock Shorty of Death Valley . . .

By LON GARRISON



"There ain't no prospectors in heaven," decided Hard Rock Shorty. "If they got there in the first place they wouldn't be satisfied. Me, I've chased the gold bug for more years'n I like to remember about an' I know dozens o' prospectors. They're all the same. A story I read about 'em oncet is sure the truth."

Hard Rock yawned, stretched out more solidly in his chair on the porch of the Inferno store and waited for the proper respectful silence before going on with his characterization of prospectors.

"This prospector died an' when he got up to the Pearly Gates, St. Peter wouldn't let 'im in. Not that he didn't deserve it, but seemed like the quota o' prospectors was full an' they couldn't take no more.

" 'Yuh gotta go on down below,' ruled St. Pete.

" 'Well, if I can't get in I guess I'll hafta stay out,' agreed the prospector, 'but seein' as I'm here, how about a visitin' permit? I'd like to see some o' the boys afore I go on down an' maybe I c'd get one of 'em to trade with me.'

"St. Peter looked a bit dubious, but he finally give 'm the pass although he didn't seem to think

there was much chance o' anybody swappin' heaven for hell.

"This here prospector walked in, set down with the boys, they all got to talkin' an' in about five minutes one of 'em sneaked over an' asked if he c'd go on down to the other place instead. Pete was some s'prised, specially when inside o' 15 minutes they all left, leavin' the newcomer all alone.

" 'How'd you do it?' Pete asked the newcomer.

" 'Easy,' says the prospector. 'I just told 'em I'd heard of a new strike down in hell.'

"So the prospector had it all to hisself for a while an' he set around for three or four days soakin' his feet in the artesian well streams, restin' in the shade an' drinkin' lemonade. Then one day he got sort o' fidgety an' he comes over to St. Peter.

" 'Yuh know,' he says, 'I think I'll move on down where the boys are myself.'

" 'What for?' asks Peter in surprise.

" 'Well, I just been thinkin' about that story I told them other fellers, an' I just gotta go down an' find out if there's anythin' to it.' "

COPPER MINE

Winner of Desert Magazine's March Landmark contest was John Bigelow of Salt Lake City, Utah. He identified the accompanying picture as the Utah Copper company's mine at Bingham canyon, and has given much interesting information about the project. Scores of excellent manuscripts were submitted in the March contest and the selection of winner was one of the most difficult decisions made by the judges since this Landmark series was started. Mr. Bigelow's winning story is published on this page.



Spence Air Photo

By JOHN BIGELOW

GREATEST single mining operation in the world!

That is the Utah Copper mine at Bingham, Utah—March Landmark Contest picture.

Twenty-four hours a day, seven days a week this man-made amphitheater is the scene of a great act in the nation's war drama, turning out single-handed nearly one-third of all the copper produced in the United States, reaching production heights previously believed impossible in the mining industry.

In a single day recently 105,000 tons of ore were removed and as always a ton of waste had to be removed for every ton of ore, making an average of 145 tons of ore and waste moved every minute for 24 hours. The daily average is running around 88,000 tons of ore which is hauled 18 miles to mills at Magna and Arthur. By flotation concentration about 36 to 40 tons of ore averaging one percent copper are reduced to one ton containing approximately 33 to 36 percent copper. This product is smelted into blister copper at the nearby Garfield smelter, biggest copper smelter in the world. The metal is re-

finied on the Atlantic seaboard. Last year Utah Copper produced about 514,000,000 pounds of copper.

In the background of the picture may be seen canyons filled with waste, a major problem.

Bingham was prospected by U. S. soldiers in 1862 and strangely enough became a gold camp. The deposit of low-grade porphyry averaging one percent copper and two percent iron was known, but it remained for a farm boy turned engineer, Daniel C. Jackling, to examine the property in 1898 and outline a revolutionary development of mining and milling on such a scale that he was considered a crackpot. He persevered and in 1904 Utah Copper company was organized. He is still president today. The company is a subsidiary of Kennecott Copper corporation.

Located 30 miles southwest of Salt Lake City in the Oquirrh mountains, Bingham clings to walls of a knife-cut canyon. One steep, narrow, winding street runs through the town to the mine and other mines. In August or September the town recalls its rowdier days with Galena Days

celebration, but the war may interfere this year. The town is out of sight in right center of photo. A separate community, Highland Boy, is lower left.

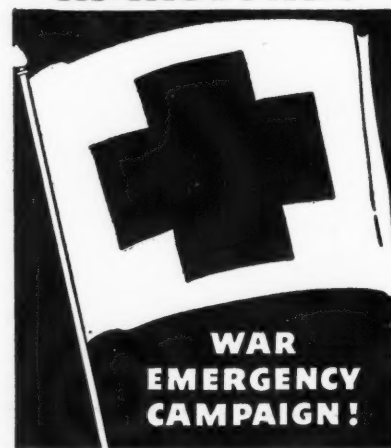
The giant pit is breath-taking: 21 levels on the west, 12 on the east, three sub levels—all covering 650 acres. The terraces are 50 to 250 feet wide, more than a mile long across the lower west levels and about 50 feet apart, vertically. Bottom level is 6190 feet above sea level and the top of the mountain, 7100. In the pit on the 98 miles of electrified track work 32 electric shovels, 58 electric locomotives. The company employs nearly 5000. A 7000-foot vehicular tunnel costing \$1,400,000 was driven around the ore body to the east when the highway had to be moved.

While leading the world in copper output, the mine also is second in molybdenum, second in lode gold and sixth in silver. The amounts of these metals in the ore are small, but the great tonnage works wonders.

OLDTIMER'S VISION

A huge painting, 20x50 feet, that took one year to complete depicts a covered wagon train crossing the desert in 1868 and is on exhibition at Knott's Berry Place on Highway 39 two miles from Buena Park, 22 miles out of Los Angeles. Framed in The Old Trails Hotel of 1868 this remarkable picture with the new lighting effect is dramatized by a two-minute narrative coming from the lips of The Old Timer, a figure setting on the end of the old bar. This amazing picture is a fitting exhibit for the first of many old Ghost Town buildings at the Village, all of which may be seen by anyone without charge. Knott's Berry Place, Buena Park, is famous for the excellent chicken dinner and boysenberry pie. Here is published the 32-page illustrated magazine and the current issue pictures and describes this mammoth oil painting. Ten cents sent to Ghost Town News, Buena Park, California, will bring you a copy postpaid.

GREATEST NEED IN HISTORY!



AMERICAN RED CROSS



Two of the South's tiny garden terraces, laboriously constructed by pushing aside the massed granite boulders that cover Ghost mountain. A lusty crop of radishes is seen in the garden at the left.

If readers of *Desert Magazine* imagine that life on Ghost mountain where Marshal South and his family are carrying on their adventure in primitive living is all just a glorious picnic, they are mistaken. In their world, where every task from the making of kitchen utensils to the gathering of food and firewood must be done with their own hands—and the day ends when darkness comes—there are few hours left for play. And yet they do have their recreation—and if you are interested to know what constitutes recreation at Yaquitepec, Marshal tells the story this month.

Desert Refuge

By MARSHAL SOUTH

RUDYARD and I were under the shade of the ramada. It was a warm, drowsy afternoon and the sleepy little breeze that came stirring through the junipers carried with it the faint incense of desert flowers. Everything was very quiet and still. All around us the rock-tumbled summit of Ghost mountain lay glowing in the sun. Lizards basked on the warm boulders and the sharp, dark shadows of the junipers were like patterns cut from black paper.

In the house Tanya was hushing Victoria to her afternoon nap; and at the table Rider was wrestling with his daily arithmetic lesson. Occasionally, according to the manner in which the problems proceeded, he emitted soft, under-breath sighs or

growls or chuckles. The faint, intermittent sounds seemed to accentuate the silence.

Last week we went upon a spring picnic. It was Rider's idea—a suggestion which, in the beginning, encountered a rather chilly welcome from "the Powers," for the work budget was over full. We might as well have spared ourselves the trouble of argument however. Once the magic word "picnic" had been uttered the day was utterly lost.

We surrendered gracefully. I filled a canteen with water and Tanya packed a lunch. And after we had gently, but firmly, dissuaded Rudyard from attempting to lug along about 15 pounds of old stones and other treasures, we set out.

I suppose we at Yaquitepec are abnormally primitive frank rebels, if you will, against the straight jacket and all-too-often hollow mockery of the thing called civilization which perches like a strangling "Old Man of the Sea" upon the shoulders of most of the world. Yet I think we can claim no different urge from that which stirs the heart of almost everyone, no matter how "custom tailored," over this matter of picnics. A good sign! A cheering sign—and with hope in it! See how the most jaded of tired eyes will light; how the most wearied of "finance" saturated bodies will tense and the most rabid addicts of "System" and "Progress" will forget for a moment their jangling tin gods of telephone and machine at the mention of a picnic. Deep down, the seed—the seed of freedom and simplicity which the Great Spirit implanted in every breathing thing—still sleeps. It is not dead. In good time, when man has battered himself weary and bleeding into the dust, it will waken again to save him and to set his feet anew upon the trail.

Thus, we reflected as we tramped happily away across the mountain crest, picking our way along the narrow path that wound among mescals and bisnagas. The morning was perfect; the sort of perfection which seems to exist nowhere else but in

the desert at springtime. Rider carried the lunch and Tanya the canteen. I carried little Victoria in a blanket. Rudyard, thwarted in his original plan to tote along "pweicious rocks" and other ballast, carried a scratch pad and a pencil with which to "Dwaw sketches an' wite pomes." Down the trail ahead of us a friendly roadrunner scooted for a few moments, then turned aside and vanished over the rocks with a flirt of his long tail. Far off the dimness of early morning haze still lingered among the buttes and washes of the lowland desert.

At the edge of the ridge, where our steep foot-trail dips downward over the precipitous edge of Ghost mountain, we stopped and took off our sandals. Bare feet are infinitely safer on these slopes; especially when one carries a precious burden. The loose litter of rocky fragments clicked and gritted underfoot as we made our way carefully downward, and the mica flakes in the stones sparkled in the sunlight as though the trail had been strewn with powdered gold. On the topmost twig of a wind-gnarled juniper a canyon wren watched us, pert-eyed, as we passed and poured forth a sweet trill of song. A grand morning—especially for a picnic.

We were headed for a tiny valley among the rocky buttes that clustered the foot of Ghost mountain to the north. A microscopic thing, scarce larger than a giant's pocket handkerchief, but we had never been there. And it was not too far off. What better combination than a picnic mixed with exploration?

From the foot of Ghost mountain we struck off across a space of lowland desert, threading our way between the creosotes and the yuccas and with a wary eye for bristling chollas that grew here and there, half concealed, among the clumped galleta grass. Bees hummed. And presently, in the blackened hollow trunk of an ancient, dead yucca that stood beside the white sands of a little wash, we came upon a big colony of them—a stream of busy workers passing back and forth through a round gnawed hole that probably, in the beginning, had been made by some rat or chipmunk. Peaceable enough, these desert bees—if left alone. Molested they are likely to reveal tempers as ferocious as that of an angered desert Indian. A mixed breed. Most of them are blacks.

We reached the foot of the butte presently and started to climb. The tiny valley that was our objective lay high up, rimmed by a skirt of rocks. The going was tough, but as we clambered upward we came all at once to the trace of an ancient Indian trail. The "old people" had been here before us. Clumps of later-grown cactus and mescals blotted the old path in places and its dim trace, in sections, was deeply trenched and rutted by long years of storm. But it was an infinitely easier route than straight climbing. Slipping and stumbling, following its dim, zig-zag windings, we passed at length over the top of the ridge and down into the little depression that was our goal.

It had been a stiff, breathless climb. But here was reward enough. The tiny valley was a creosote and yucca studded bowl, rimmed by stony ridges. And, used though we were to the beauty of the desert, it looked like a little bit of sunlit fairyland. It was a patterned carpet of gold. Myriads of little yellow flowers grew everywhere between the bushes, so thickly that the foot trod down dozens with every step. The clean white gravel between the plants sparkled in the sunshine like crushed marble. In the deep shade beneath the wide-branching creosotes crowded a luxuriance of sheltered grass, green and tall, its massed verdure lit by the glint of unnumbered blue blossoms which the children promptly christened "corn flowers." Above, the bayonet-fringed heads of the drowsing yuccas lifted great fountain plumes of white, wax-like flowers, round and about which hummingbirds whirled—darting and poising in flashing sparks of color. There was a breeze too. It seemed to belong to the valley, for we had not noticed it before. It stirred softly among the yucca plumes and swayed the long slender branches of the creosotes and fanned a bewildering breath of fairy perfume

down the sunlit aisles between the bushes as it went about softly on noiseless feet. It seemed something more than a breeze. Perhaps, as Rider suggested thoughtfully, it was the Spirit of the Flowers.

We ate our lunch in the narrow shade of a clump of yuccas which reared brown-skirted, palm-like trunks above our heads. Out in the warm, still beat of the sun, torch cacti spread great blooms of scarlet, and tiny, gay mimulus blossoms did sentry duty amidst the crowding ranks of yellow daisies. From brush thickets to yucca clumps orioles winged. The heady incense of millions of flowers rose in the warm sunshine and the fan of the breeze stirred rippling waves in the thick masses of the tall grass clumps. The glint of gold from the flowers was dazzling to the eyes. Our spread of blanket was a tiny island in the midst of a gorgeous rug of yellow and white, green, blue and pink.

We finished our simple lunch and then lay and sunned ourselves in the warm drowsy peace, letting our bodies drink deep of the healing strength of the earth. Overhead a couple of desert ravens passed, flapping heavily across the sky and commenting on our presence with a long-spaced, philosophic "chowks." Rudyard wrote a "pome," scribbling industriously weird pencil marks of alleged writing upon his scratch pad. Victoria went to sleep, a tiny fragment of uneaten tortilla in one hand and a bunch of yellow flowers in the other. After a while Rider and Rudyard wandered out to a small clear patch of glinting white gravel and began to build fairy houses. Fashioning them with walls and roofs of carefully collected little flat colored stones, doors and windows and paths and gardens, all complete. It is a favorite play job.

If ever, when wandering through untrodden sections of the wasteland silence, you should come suddenly upon a tiny clearing, wherein cluster a group of little Pueblo Indian houses, shaded by tiny twig trees and with proportionately sized bordering corn patches, all carefully planted with bits of leaf and grass and cactus spines, you may know that you are somewhere in the vicinity of Ghost mountain and that you have stumbled upon one of Rider's and Rudyard's fairy villages. They build them and go away and leave them, with wistfulness and love and good wishes, in the silence of the desert. They are for the fairies to come and live in. And mayhap the fairies do just that. Why not? Are we all so old and crusted and "scientific" that we do not believe in fairies any more? Of course not! Of course there are fairies! We of Yaquitepec believe in them anyway.

It was almost sunset when we got home. The great ball of day-fire was slipping to its western rest in a flaming glory of crimson and of gold. The long shadows of mountains were marching across the lowland desert. The children were tired as we came up over the last section of the trail and the little home-house, low crouched among the mescals and giant boulders looked wonderfully welcoming and friendly. A quartet of desert quail whirled away from the lower of our tiny garden terraces as we came up the path. They too had been having a picnic—amongst our radishes. But they had not done much damage.

• • • SPRING

*Young shoots are straining upward to the light.
The smell of Spring is everywhere. Though white
The distant hills and cold the icy gust
That from their hoary, ancient snow-caps thrust,
Young shoots are struggling up to life renewed,
The long, cold winter past. New hope imbued.
Oh soul take courage. Brighter days will bring
More life renewed. For there is always Spring.*

—Tanya South



Evylena Nunn Miller. She has painted around the world.

IT WAS at a Navajo squaw dance in Monument valley that I first met Evylena Nunn Miller. I had arrived late, as had the Millers and others. The accommodations at Harry Goulding's trading post were filled. The only quarters available for us was a dank dark hogan with nothing to sit or sleep on.

After 10 minutes in this abandoned hogan I was ready to return to civilization. But before I could make my way out I heard Evylena Miller laugh and remark to her husband, "Isn't this wonderful? I was afraid we'd be completely out of luck."

Ashamed and curious, I turned back and spent half the chilly night trying to figure out how this diminutive woman could wax enthusiastic over such a miserable shelter as we shared.

So we talked. By the light of an electric torch, and cheered by hot coffee from the Miller thermos bottle, I discovered that Evylena Nunn Miller had in the course of her short life painted her way from Santa Ana to Galilee, from Cairo to Acoma the Sky City. And she had, she said merrily, spent nights in worse quarters enroute.

"When did it all begin?" I asked.

"When I was so big, in Kansas, where I was born. My father was a grain broker. Often I went with him to see the crops coming along. He would lift me up on a fence: he would see the rich wheat, I the sea of lustrous gold beneath a summer's sky."

She launched her career with a childish

In her studio at Palm Springs Evylena Nunn Miller will show you paintings from many lands—but the canvasses, for which she is most enthusiastic—and she is a very enthusiastic person—are those of the Indian country and the Colorado desert. Here is the story of an artist who regards no hardship as too great—if there is a picture to be obtained.

She Prefers the Desert . . .

By EDW. E. LANSEER

box of crayons, then took up water-color and pastel. The family moved to California. At Occidental college, Evylena majored in art. When that institution decided to delete art from its curriculum, she deleted the school altogether and changed to Pomona college, where in due time she achieved her B. A. and arts diploma.

Afterwards there came additional study in the East. Then a rigorous period of painting and teaching. When fatigue finally got the best of her, she decided on a holiday in Japan.

In Tokyo, Evylena began immediately studying under Jippo Araki, artist and head of all Imperial exhibitions. Her month's holiday stretched into a two-year period of teaching at a Presbyterian mission school. Meanwhile, she was painting to her heart's content in a land whose picturesque beauty seemed made for brush and pigment and high imagination.

Quitting Japan with her cargo of art, she turned to China, through Egypt, the Holy Land, Europe, and home. She married Howard Earl Miller, and with him toured the national parks and high Sierras. Her canvasses of Half Dome, of Rainier, Ptarmigan lake, the North Rim, are inspired and painted with a rare technique.

Mrs. Miller is a small person, sensitive, almost frail. It requires an elastic faith to associate her with the prodigious number of mountain and desert paintings that bear her signature.

She does not affect artiness in speech or appearance. Laughter seems to spill from her dark eyes. She is gentle and very human. Behind it all you sense a nimble wit, a fine spirit, a driving force of inquisitive industry.

Having painted Jerusalem's Via Dolorosa, Gizeh's pyramids, the Forbidden City in a dreamlike gauze of falling snow, Half Dome, the challenging beauty of the Grand Canyon at evening, I asked her of it all, which did she like best to paint?

"The Colorado desert, and Indian country," she answered.

This may sound strange to the city dweller. But not to those of us who know something of the desert's subtle coloring, its swiftly changing moods.

There isn't a great name in western art who'll deny that it is easier to paint the Matterhorn's static beauty than to cap-

ture the glow, the haunting loveliness of the desert—a beauty that entralls the beholder yet lasts but a moment.

Perhaps it is this very defiance of the desert's elusive moods that challenges Mrs. Miller above all conquests she has made with paint and brush in different lands. To convincingly paint this untended but glorious garden of the gods is not a simple task. No artist has found it so. When Evylena Nunn Miller turned her attention to this vast desert, she plunged ahead with characteristic enthusiasm into every phase of terrain and flora. The lonely dune, the magenta range, the leafless silver smoke tree all enchant her equally.

Anthony Anderson—dean of art critics—finds her pictures "awe-inspiring and at the same time full of a quiet and compelling beauty. They suggest the grand rhymes of epic poetry."

Well, to commit on canvas the loveliness of Nature without its scars, yet win the approbation of the critics, is no mean distinction. For some queer reason the professional critic often frowns on pleasant art. I have never been able to understand why art cannot translate that which is beautiful in life without being accused of transgression.

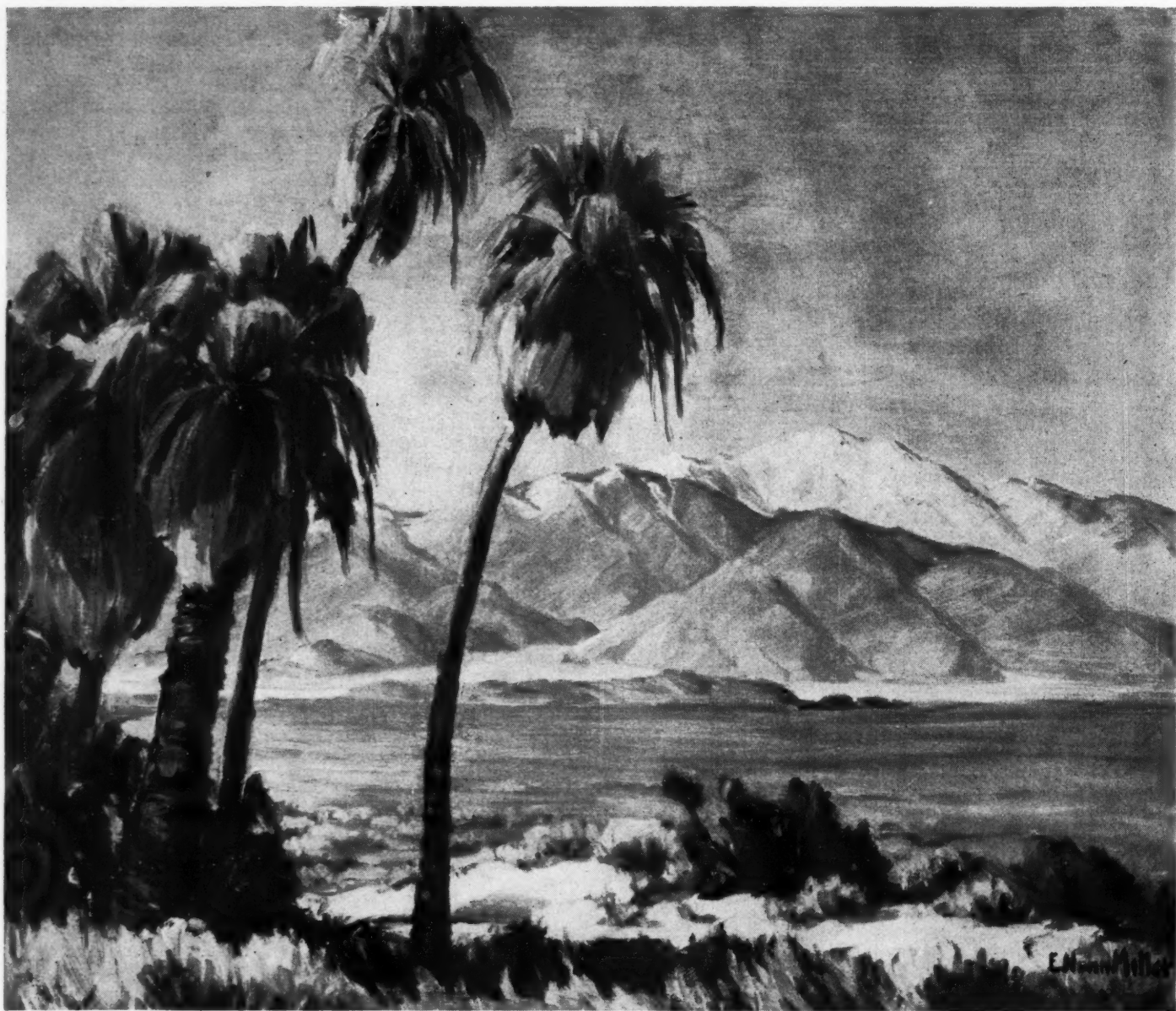
Being a person of unlimited enthusiasm does not make this Evylena Nunn Miller an easy person to travel with.

Should you accept her invitation to go sketching, as I did the time she fancied looking over the Cliff Dwellers' apartments, you would find that out. I didn't mind following behind with her sketch-box, wading streams, crashing through cactus, rock and ruin up the Mesa; descending into eerie abandoned kivas. What I did mind was doing all this at day-break.

"To get the best light," she laughingly explained.

What I equally disliked was doing much of the same thing at Old Oraibi, and Walpi, and elsewhere at sundown. Why must artists keep such hours? But the good ones do. They positively revel in hardships, never compromising art to nice physical comforts.

They seem to have an extra endowment of that intangible something in human nature—that reaching up and beyond the horizon for something precious and imperishable.



Halftone reproduction of Mrs. Miller's painting "Two Bunch Palms."

COVER CONTEST AWARDS ANNOUNCED . . .

To Hubert A. Lowman of Kansas City, Missouri, goes the honor and the \$15.00 prize award offered by Desert Magazine in its Photographic Cover contest which was judged April 1. The prize photo is a view of Betatakin Indian ruin, in Navajo national monument, Arizona.

Second prize of \$10.00 went to E. F. Hudson of Whittier, California, for a photograph of the Spanish Ovens at Isleta Pueblo, near Albuquerque, New Mexico.

E. F. Tucker of Boulder City, Nevada, was awarded third prize for an unusual picture of the desert sands.

In addition to the three prize-winning pictures the judges selected 14 prints of exceptional merit for cover purposes in

accordance with the contest rule which permitted purchase of non-winning photographs at \$3.00 each. These will all appear on future numbers of Desert Magazine.

Following are the entrants whose photographs were accepted.

Ivan B. Mardis, Tucson, Arizona, four pictures titled "Burro," "Arizona Sunset," "Night Blooming Cereus," and "Desert Lunch."

Josef Muench Santa Barbara, California, three pictures titled "Totem Pole," "Saguaro Blooms," and "Navajo Children."

J. E. Byron, Boulder, Colorado, two pictures titled "Acoma Pueblo" and "Saguaro and Organ Pipe Cactus."

T. B. Cunningham, Santa Monica, California, picture titled "Kit Fox."

Hubert A. Lowman, Kansas City, Missouri, "Navajo Maid."

Fred H. Ragsdale, Los Angeles, California, "Red Rock Canyon."

Joe Orr, Los Angeles, California, "Chuckawalla."

Robert Wigglesworth, Pioche, Nevada, "Smelter Charcoal Ovens."

This year's contest brought an avalanche of fine photography to the office of Desert Magazine, and the selections made by the judges will insure a high standard of covers for many months in advance.

The staff takes this means of expressing its appreciation for the interest and efforts of the many contestants.

Here's another lost mine story with the old familiar pattern—an Indian who knew the location, but would never lead the white man to it. Most of the old-timers regard this treasure tale as pure fiction—and it is passed along to Desert Magazine readers merely as legend. And yet it is a story that has persisted for many years.

Big Antelope Placer

By JOHN D. MITCHELL

Illustration by John Hansen.

INDIANS arriving at La Paz on the Colorado river in the early sixties to barter their gold for supplies often talked of other and richer deposits of placer to the east. These reports reached the ears of Captain Pauline Weaver and Major A. H. Peeples, who decided to make an investigation. An expedition was soon organized and several days after leaving the mines at La Paz the little party camped at the foot of a high mountain a few miles north of Wickenburg.

During the night some of the horses strayed from camp and the next morning one of the Mexicans was sent out to look for them. In order to get a better view of the surrounding country and if possible locate the missing animals, the Mexican climbed to the summit of the mountain where his attention was attracted to a large number of nuggets scattered over the barren bedrock of the little basin or depression on top of the mountain. The ground was literally covered with gold nuggets that lay sparkling in the morning sunlight.

It is a matter of record that the placer operations at Rich Hill have produced in the neighborhood of \$20,000,000 and that many of the nuggets were worth from \$500 to \$600 each and some were worth even more. Frequently nuggets of large size were found lodged under the large granite boulders scattered over the mountainside.

A man by the name of Johnson crossed the Colorado river at Yuma with \$60,000 worth of nuggets loaded on two pack mules. He stated that he had mined them at Rich Hill and was on his way to California, traveling with a company of soldiers as protection against outlaws and Indians who infested the country at that time.

The Indians around Rich Hill laughed at the miners for wasting their time picking up, what the Indians called, small nuggets, when only a short distance away in the same country was another mountain known to them as "Big Antelope" where the nuggets were larger and more plentiful. However, the little ones must have looked good to the old timers for they remained to make many millions in the

big gold rush that followed close on the heels of the first discovery.

It was not until some years later that the hunt for the "Big Antelope" placer got

underway. It was about that time that a Negro known locally as "Nigger Ben" and employed by A. H. Peeples on his ranch in Peeples valley, heard the story from an Indian who had been loafing around the ranch, and after considerable persuasion induced him to guide him into the Big Antelope country.

Upon their arrival at Sycamore Springs the Indian informed Ben that they were close to the gold and advised him to search for it. The Negro knew that there was a superstition that prevented the Indian from taking anyone directly to the mine. To do so, the redskin believed, meant instant death at the hands of the gods or by his own tribe.

While the Indian rested at the little



"Upon arrival at Sycamore Springs the Indian told Ben they were close to the gold, and advised him to search for it."

springs the Negro searched the hills for the gold that the Red man insisted was near at hand. Failing to find the gold in three days the search was given up and the two men reluctantly returned to the ranch where the Indian disappeared and the Negro resumed his duties as a ranch hand.

Some months later when the Indian again appeared at the ranch, Nigger Ben hired him to make another trip with him into the wild country around Sycamore Springs. However, before leaving the second time the Negro advised Mr. Peebles, his employer, of his intentions and asked him to send a searching party to Sycamore Springs in the event that he did not return to the ranch in a specified time.

Several weeks went by and when the Negro failed to return in the specified time, a searching party was organized and upon arrival at Sycamore Springs discovered the dead body of the Negro. The Indian was nowhere to be found and was never seen again.

Many believe that Nigger Ben found the gold and paid for it with his life when the savage began to realize what he had done, believing as he did, that to disclose a tribal secret meant instant death. The body of the Negro was returned to the ranch where it now lies buried under a cairn of stones. The herd of big antelope from which the mountain took its name has long since disappeared and the Red man has heard the call of Manitou.

Many others have searched for the Big Antelope placer—but its location remains one of the unsolved mysteries.

• • •

Weather

FROM YUMA BUREAU

Temperatures—	Degrees
Mean for month	63.0
Normal for March	64.1
Month's highest	95.0
Month's lowest, on 8th	41.0

Rainfall—	Inches
Total for month	0.17
73-year average for March	0.34

Weather—	
Days clear	24
Days partly cloudy	4
Days cloudy	3

Sunshine, 92 percent (341 hours of sunshine out of a possible 372 hours).

Release from Lake Mead averaged around 25,000 sec. ft. Storage during the month decreased about 1,000,000 acre feet.

JAMES H. GORDON, Meteorologist

DESERT QUIZ

Here's a new list of brain-exercisers for folks who like to keep their minds active. You need to have a heap of knowledge about a wide variety of subjects to score high in this test. They include Southwestern history, geography, mineralogy, botany, literature and the general lore of the desert. The average person will score less than 10 correct answers. Seasoned desert rats will answer 15, and occasionally one of those super-persons will make an 18. When they are that good we call 'em Sand Dune Sages. The correct answers are on page 29.

- 1—A rattlesnake adds a new button to its tail— Once a year.....
Twice a year..... Everytime it changes its skin.....
Scientists do not know the answer.....
- 2—Sotol is the name of a desert— Mineral..... Plant.....
Reptile..... Rodent.....
- 3—The man generally credited with the discovery of silver at Tombstone was named— Schieffelin..... Schnebly..... Weaver..... Williams.....
- 4—Canyon del Muerto is a tributary of— Grand Canyon.....
Oak Creek canyon..... Bryce canyon..... Canyon de Chelly.....
- 5—Hadji Ali (Hi Jolly) was a— Camel driver..... Yaqui chieftain.....
Navajo god..... Mountain man.....
- 6—If you cruised up Lake Mead to where it meets the Colorado river, at the farthest point you would be in— Arizona..... Nevada.....
Utah..... Boundary between Nevada and Arizona.....
- 7—Indians who live on the shores of Pyramid lake in Nevada are—
Ute..... Chemehuevi..... Mojave..... Paiute.....
- 8—There are approximately 25 minerals from which quicksilver is extracted, but the most common one is— Muscovite..... Cinnabar.....
Nicolite..... Apatite.....
- 9—Willis Linn Jepson is recognized as an authority on— Cactus.....
Geology..... Astronomy..... Archaeology.....
- 10—The character most widely publicised in connection with the Lincoln county war was— Butch Cassidy..... Wyatt Earp..... Billy the Kid.....
Sheriff John T. Pope.....
- 11—Chief industry of the Hualapai Indians of northern Arizona is—
Weaving..... Cattle raising..... Sheep raising.....
Pottery making.....
- 12—According to legend the Enchanted Mesa is the ancient home of—
Zuñi Indians..... Taos Indians..... Hopi Indians.....
Acoma Indians.....
- 13—Desert tortoises hibernate in— Rock crevices..... Holes dug by other
denizens of the desert..... Nests of leaves and sticks.....
Holes excavated by themselves.....
- 14—The first colony of Mormon emigrants reached Salt Lake in—
1823..... 1862..... 1847..... 1870.....
- 15—J. Frank Dobie is best known as— A writer of western books.....
Authority on gems and minerals..... Mining engineer.....
Movie cowboy.....
- 16—Capitol Reef national monument is located in— Utah.....
California..... New Mexico..... Nevada.....
- 17—Blossoms of the Nolina are— Blue..... Creamy white.....
Orange..... Red.....
- 18—Which of the following four minerals is harder than quartz?
Calcite..... Feldspar..... Jade..... Corundum.....
- 19—The stream traversing Zion national park is— Kanab creek.....
Paria river..... Virgin river..... River Jordan.....
- 20—Going from El Centro, California, to Yuma, Arizona, one would travel on—
Highway 60..... Highway 99..... Highway 395..... Highway 80.....

Travel and Recreation in Wartime

PRESIDENT'S STATEMENT CLARIFIES PROBLEM

From the White House at Washington comes a statement written by the President, which will be of interest to individuals and civic groups now debating the question as to what extent community events, vacations and recreational pursuits should be curtailed during the war emergency.

The President's opinion, in the form of a memorandum issued through the department of interior, is as follows:

"Many people have written the executive office asking for some statement of the general attitude of the federal government toward the continuation of various sports, dramatics, concerts, vacations and general recreation and amusement during the war effort. Most of the letters point out that the writers are anxious to do their utmost to help in the prosecution of the war and wonder whether such activities are considered to be harmful to the prosecution of the war.

"It is of course obvious that the war effort is the primary task of everybody in the nation. All other activities must be considered secondary. At the same time it has been proven beyond doubt that human be-

ings cannot sustain continued and prolonged work for very long, without obtaining a proper balance between work on one hand and vacation and recreation on the other. Such recreation may come by participation in, or attendance at, various sports, motion pictures, music, the drama, picnics, et cetera. All of them have a necessary and beneficial part in the promotion

of an over-all efficiency by relieving the strains of war and work.

"The actual occurrence of very large gatherings, of course, must depend on local safety conditions of the moment.

"Within reasonable limits, I believe the war effort will not be hampered but actually improved by sensible participation in healthy recreational pursuits. It must be borne in mind, however, that 'recreation as usual' is just as bad as 'business as usual.' Recreation under present conditions can be undertaken solely with the purpose of building up body and mind with the chief thought that this will help us win the war."



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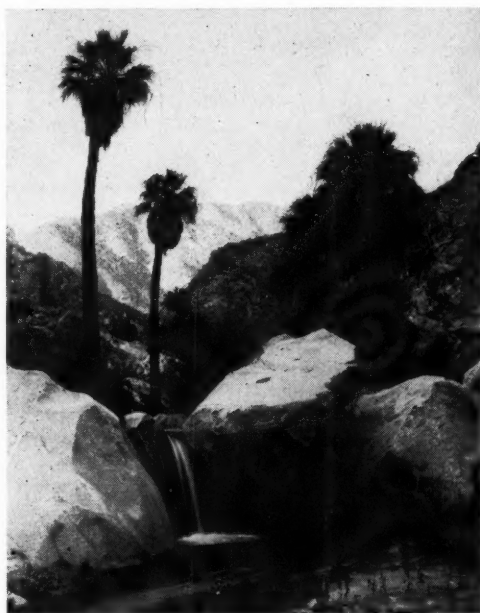
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A. C. Berghoff, Proprietor—Harry J. Wall, Manager



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A SCENIC MAP OF IMPERIAL VALLEY will guide you on your visit. A note to B. A. Harrigan, secretary, Imperial County Board of Trade, Court House, El Centro, Calif., will bring the map and further details.

IMPERIAL COUNTY BOARD OF TRADE

LETTERS...

Reading Matter for the Sub Crew...

San Francisco, California

Dear Sirs:

I did not receive my magazine this month. I know it must be spring down there, but please have mercy on a fellow who is stuck on a submarine and send me that March copy. In regards to your argument about getting stuck in the sand, did anyone ever try pulling sage-brush?

MANFRED D. QUINBY

Range of the Gila Woodpecker...

Encinitas, California

Dear R. H.:

Mr. George Brandt's statement about the Gila woodpecker in your April number is somewhat misleading.

He says "few birds are so closely restricted to a single area as the Gila woodpecker to the region of the giant cactus."

Gila woodpecker is one of the commonest birds in Imperial valley, California, quite a long way from any giant cactus. I have a photograph of these woodpeckers feeding at my table south of El Centro.

These birds were there all the year 'round—nested in old willows along the south Dogwood canal. As soon as their young were able to fly they always brought them to feed at the table.

AUBREY M. DRAPER

From the Desert of Colorado...

Trinidad, Colorado

Dear Mr. Henderson:

Last summer after a trip to California I became acquainted with Desert Magazine. I liked it so much I obtained some back copies. I truly have never seen a magazine that combines so many interesting articles as Desert.

Only one thing disappoints me. That is the fact that Colorado is not included in your coverage of the desert region. North of the town of Raton, New Mexico, there lies in Colorado an area bounded on the west by the Sangre de Cristo mountains, those great pinnacles whose name, given by the Spaniards, tells of their resemblance at sunset to blood. The name in English is "Blood of Christ." To the north and east are great plains across which deer and antelope roam.

In the heart of this region is the historically rich city of Trinidad. Aside from the historical interest, this region which slopes toward the east boasts all the animals, plants and geology of the desert region to the south. Across the flat desertland the great Canyon El Rio de las Animas Perdidas en el Purgatorio runs into the Arkansas river. Purgatorio canyon has never been completely traversed, and few people have seen its deepest portion.

As New Mexico is included in the Desert region, I believe that since this region is so similar it should also be included. At any rate the New Mexico Indians extend their hunting and camping in this area. So, if your readers consent, why not include this great plain with its desert aspect, its lava flows, its deep canyons and its historical lore in your fine publication?

BOB TATUM

Thanks, Bob, for the invitation. Desert Magazine staff plans to include Colorado and other desert areas in these pages at a future time when paper is more plentiful. I would like to explore your Purgatory canyon.

—R.H.

More About Simple Life, Please...

Willits, California

Dear Sir:

I wish to make the suggestion (after long consideration) that Mr. Marshal South be asked to give us more facts and less philosophy. We like to hear about his charming family more and especially about how they do things, whereas the philosophy can be had cheap, anywhere, if so desired, even on the radio these days. It is no treat, while the life of the Souths definitely is. The straw which broke the thingummy's back was in this issue. We all wanted so much to hear just how the mesal roast was made and just what it was and how it tasted. But did we? No. Just bum philosophy. This is no kick, though, just a little suggestion.

CHARLES H. WALKER

Good Antidote for War...

Alhambra, California

The Desert Magazine:

In these days of trouble, working at my job all day and coming home to work four or five hours nightly as district air raid warden, it is a godsend to be able to pick up the Desert Magazine and look through it, seeing the places where I used to go but cannot (tires) and if you but knew how restful it is to sit in my arm chair, with a cigar, at midnight or thereabouts when the rest of the household is asleep and read your magazine, pardon me, MY magazine, you would be somewhat repaid for your labors in getting the publication out. Don't let the war stop it.

BLAKE LOCKARD

We'll Keep 'em Rolling...

Burbank, California

Dear Sir:

Being an aircraft worker with four bum tires, I don't see any possibility of getting back to the desert for a long time—and shoe leather is getting thin so I won't be able to walk.

So I'll have the desert brought to me. That's your job. My job will be to keep the planes rolling out the door. Then we'll both be happy. Money order for \$4.00 enclosed.

A. E. PIERCE

We Have to Balance the Books...

Pasadena, California

Dear Mr. Henderson:

What, may I ask, would arouse a subscriber's resentment more than to see a vacation resort ballyhoo plastered right square in the center of his favorite periodical—Desert Magazine. It is an imposition.

ALAN S. BLACK

Dear A.S.B.—I am not so hot over the idea either—but when it costs us \$3.60 a year to print a magazine we sell to the subscribers for \$2.50, we have to look to advertisers for the difference. So please be as tolerant as you can—and thanks for the compliment.

—R.H.

Suggestions Always Welcome...

San Bernardino, California

Dear Mr. Henderson:

It's apparently not unusual for your letter writers to express their likes and dislikes in regard to the Desert Magazine, but knowing the value of space I'll make mine brief: Features I especially enjoy include photography, desert exploration, articles on ghost towns, lost mines, and biographies of old-timers on the desert.

Least enjoyable to me are Indian legends and history, basketweaving, etc. However, I realize that the desert country has a wide variety of attractions, and that its enthusiasts have a correspondingly wide range of interests. The Desert Magazine endeavors to please all, and for this effort I offer my heartiest congratulations.

Now that the warmer months are making their appearance, I hope the trend of descriptive articles will be toward the higher altitudes on the desert. I agree that it's a thrill to stumble on a palm oasis in some remote canyon down your way, but it's equally as great a thrill to discover a grove of cottonwoods and hackberry in a hidden canyon up among the joshuas, junipers and piñon pines in the hills of eastern San Bernardino county and southern Nevada. Other attractions the higher regions have to offer to the desert explorer include ghost towns, cattle ranches, mines, wild horses and burros, Indian signs, "rockhound bait," etc.

While the current rubber shortage is going to prevent a lot of desert exploration, it will be mostly the paved-road sightseer who will suffer. The true desert enthusiast will merely do a lot more walking or use a horse on longer trips.

After the war maybe we can solve this eternal question of tougher automobiles for desert travel by buying up a used jeep or two.

BOB AUSMUS

Regarding Those Stalactites...

Reno, Nevada

Dear Mr. Henderson:

I note that in the April issue you have quoted English accurately as to the origin of stalactites, however, that is not sufficient. It is true that water dissolves limestone and deposits stalactites. However, the latter are not limestone but calcite, more rarely aragonite.

Limestone is a sedimentary rock composed of calcite and when this is dissolved it may be redeposited in caves as calcite but never as "limestone." What English intended to convey was something as follows: "Water percolating through this rock dissolves part of it and then, as it drips slowly from the roof of the caves the calcium carbonate is redeposited as calcite or aragonite, in forms which mimic icicles and are called stalactites."

You quoted correctly but at the same time the quotation gives a false impression. You are not to blame, you selected good authority who probably did mean exactly what his statement would imply.

VINCENT P. GIANELLA

Thanks, Mr. Gianella for getting me out of the doghouse so gracefully.

—R.H.

Those Nevada Mountains Again...

Altadena, California

Dear Randall:

I am not as a rule a writer-inner but we mountaineers among DESERT readers can't resist the temptation to have the last word when you desert rats and sand dune sages get into an argument over which is the third highest mountain in Nevada.

Mr. C. C. Boak of Tonopah, Nevada, states in his letter in the April issue that you made an error about Toiyabe peak (properly called, I believe Toiyabe dome) then he proceeds to make one himself.

Mr. Boak writes, "Toiyabe peak is the third highest peak in Nevada and is 11,775 feet as given by the U. S. coast and geodetic survey."

Mr. Boak's error is just 135 feet. For Charleston peak, 11,910 feet by U. S. geological survey, is the third highest mountain in Nevada. Not that it makes much difference, but let's keep the record straight.

Sorry to trouble you on this Toiyabe-Charleston business, but we can't let these Nevadans tell us about their mountains!

WELDON F. HEALD

It's Lonesome in Texas . . .

Barracks 510
Sheppard Field
Wichita Falls, Texas

Desert Magazine:

Received my Desert Magazine a few days ago. The next best thing to the desert is to get the magazine.

I have prospected in Southern California, Nevada and Arizona and feel lost here. My home is in Brawley and I know the Chocolate mountains well. There are some parts of them that look promising to a prospector.

At present I am a soldier attending the airplane engine mechanic's school at this field. If you could just put my address in the magazine perhaps I would get a few letters—from either sex—to help pass my spare time away.

I have "sat around a lot of campfires and cooked and eat and talked and lied," as an old prospector once said to me.

GUY L. JOY

Millard of the Snake Clan . . .

Toreva Day School
Second Mesa, Arizona

Gentlemen:

If you still have one of the Lt. Ives reports advertised in your magazine of January I should like to have one. For the past three years I have been compiling data on the Hopi for use in the Hopi schools and have all the reports of the commissioner of Indian Affairs except that giving the account of the founding of Hotevilla.

In a recent number of Desert you mentioned the little boy who took part in the Snake Ceremony at Mishongnovi this year. His name is Millard. I do not know the Hopi name which he has been given but his mother is Talitha and his father Sidney. He attends school here at Toreva. This is his first year in school. I shall take a photograph of him soon and send you one.

Am also sending card for subscription for myself and my son Robert at Tuscola, Ill.

Yours,

J. H. MATTIX

Teacher, Indian Service

Keeping the Records Straight . . .

Santa Monica California
April 6, 1942

Dear Sir:

I am sorry to catch you in another slip in "True or False" for April.

Dellenbaugh's name was Frederick S. instead of Frank. However, you are forgiven for not knowing as much about Colorado river history as I do.

JULIUS F. STONE

Thanks J.F.S., you've caught me without an alibi. —R.H.

DESERT QUIZ ANSWERS

Questions on page 26

- 1—Everytime it changes its skin.
- 2—Plant.
- 3—Schieffelin.
- 4—Canyon de Chelly.
- 5—Camel driver.
- 6—Arizona.
- 7—Paiute.
- 8—Cinnabar.
- 9—Cactus.
- 10—Billy the Kid.
- 11—Cattle raising.
- 12—Acoma Indians.
- 13—Holes excavated by themselves.
- 14—1847.
- 15—Writer of western books.
- 16—Utah.
- 17—Creamy white.
- 18—Corundum.
- 19—Virgin river.
- 20—Highway 80.

FREAK ROCK IN NEVADA!

Who can identify this picture?



PRIZE CONTEST ANNOUNCEMENT . . .

The above photograph was taken in southern Nevada in an area where Nature has created many strange objects.

Some of Desert Magazine's readers will recognize this rock. And if they are observing travelers they will be able to write a story about it.

We would like to have some of these stories sent to the magazine office so we can pass the information along to others. For the best manuscript of not over 500 words a cash prize of \$5.00 will be paid. It should include all available in-

formation as to name and location of the rock, approximate dimensions, access by highway, and other pertinent data both regarding the rock and the area where it is found.

Entries in this contest should be addressed to Landmark department, and must reach the Desert Magazine office, El Centro, California by May 20. The winning manuscript will be published in our July issue. Non-winning manuscripts will be returned if postage is enclosed.

Prizes to Amateur Photographers

Each month the Desert Magazine offers cash awards of \$5.00 and \$3.00 for first and second place winners in an amateur photographic contest. The staff also reserves the right to buy any non-winning pictures.

Pictures submitted in the contest are limited to desert subjects, but there is no restriction as to the residence of the photographer. Subjects may include Indian pictures, plant and animal life of the desert, rock formations—in fact everything that belongs essentially to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the May contest must be received at the Desert Magazine office by May 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

4—Prints must be in black and white, 3 1/4 x 5 1/2 or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the May contest will be announced and the pictures published in the July number of the magazine. Address all entries to:

Contest Editor, Desert Magazine, El Centro, California.



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P. O. Box 790 Tucson, Arizona

Writers of the Desert . . .

FROM the archives of the Indian bureau at Washington, D. C., DAN THRAPP dug out the facts for the story of Polk and Posey, the Ute renegades, appearing in this issue of Desert Magazine.

Thrapp is a correspondent for United Press, now stationed at Buenos Aires. According to a letter recently received by his father, Frank H. Knapp, he expects to return soon to enlist in the armed forces of United States.

Thrapp has had an interesting and varied career, including much time spent in exploring out of the way places in the West on foot and horseback. He usually traveled alone, with his outfit on his back—his pack consisting of four blankets, camera, 30 feet of rope and a hand-axe. His exploration of the Colorado river canyon from Green River, Utah, as far downstream as he could make his way without a boat, was given considerable space in Lincoln Ellsworth's book "Exploring Today."

After serving in the Canadian army through World War I, EDWARD E. LANSER came to California to spend a month thawing out on the California desert—and the month has extended to more than 20 years.

Lanser wrote this month's story about Evelyne Nunn Miller, Palm Springs artist. He has written for many markets, from poetry to love-pulp.

"My first published work," he confesses, "was inspired by the desert, but unfortunately it took the form of some horribly sticky poetry, a line of which I'll quote since I'm among friends:

The sun and sand and solitude
Is one great symphony,
And YOU the haunting theme . . ."

Like most writers, he aspires to write a novel. Unlike a great majority of the aspirants, he already has the first 200,000 words completed, but admits that "I haven't got the thing whipped yet."

HELEN ASHLEY ANDERSON is a new recruit among Desert Magazine writers. The story of her experience at Keane Wonder mine on the rim of Death Valley in this issue of Desert, is not her first literary sale, however.

She has been writing as a hobby since she was 10 years old and her poems and articles have appeared in many publications. She once conducted a column "Me

Thinks" under the pen name of Sagebrush Annie.

Mrs. Anderson spent much of her life in Colorado, but has traveled widely and her experiences include a typhoon, a twister, a flood, three fires and a blizzard. She is a member of the Colorado Poetry Fellowship and the American Literary association.

She and her husband divide their time between the Death Valley mining project and a small lead-zinc mill which they own in Colorado.

JOHN HILTON recently sold a story with a series of kodachrome pictures of the jumping bean industry on the west coast of Mexico to Saturday Evening Post. The material for the feature was obtained last summer when he and his family spent two months at Alamos.

The pen may be mightier than the sword, but in this period of wartime emergency many of Desert Magazine's writers are contributing an important part if not all their time to civilian defense and military duties.

Here is a paragraph from a letter written by HULBERT BURROUGHS, whose travelog features and photography have appeared frequently in Desert Magazine. Hulbert was in Honolulu December 7, and his letter is from Hickam field, Oahu. He writes:

"I enlisted in the army January 19 and am stationed with the Hawaiian air force in G-2 department doing some special photographic work. This is a particularly good place to do service and I am enjoying the work as much as anyone could enjoy being in the army. But I certainly miss my dear old California and the Southwest. Charles Shelton is a first lieutenant here at Hickam field and we talk often of our desert trips. During the past week there has been a brilliant moon and it invariably makes me think of the incomparable moonlight nights of the desert. Oh well, perhaps I'll see them again sometime. Who knows?"

Barry Goldwater who has contributed both feature copy and photographs to Desert, is a lieutenant in the air service.

Harlow Jones, who has done much photographic work for Desert has been working long hours doing photography for the Twentynine Palms air academy, where glider training is in progress.

THE DESERT MAGAZINE

HERE AND THERE... on the Desert

ARIZONA

Renegade Buffalo Killed . . .

PHOENIX—Old Renegade—one ton buffalo outlaw—will destroy no more for he was shot a short time ago and at request of Arizona's game and fish commission. For 17 years he held his own against all comers in Arizona's buffalo herd that roams House Rock valley, but when he was challenged and beaten by a younger bull, Old Renegade departed to become a destructive nuisance.

Pow-Wow Scheduled . . .

FLAGSTAFF—All Indian Pow-Wow will be held in this city as usual next July 3, 4 and 5, representatives of board of directors announced. Business men of community favor holding ceremony despite possibilities of curtailed tourist attendance.

Arizona May Produce Cork . . .

PRESCOTT—Arizona in 15 years may be a major cork producing state. A program now well underway points to 15,000,000 producing cork oak trees within that period. Seedlings are now being furnished and more will be made available next year. In Tonto national forest 450 seedlings have been set out.

Bridge Canyon Survey Complete . . .

PEACH SPRINGS—Survey for Bridge canyon dam 20 miles north of here has been completed according to information received from Washington. Construction can be started as soon as reclamation department obtains funds.

Woman Found . . .

FLAGSTAFF — Authorities found Mrs. Francis Bigus, 63-year-old Melrose Park, Illinois, tourist alive after five days exposure in snow-covered mountain regions south of here. Mrs. Bigus wandered away from a car when it was stalled in a snow-drift, and walked 21 miles before she found shelter in an unoccupied cabin.

New Bridge at Topock . . .

YUMA—Santa Fe railroad officials have made application for construction of double track bridge at Topock, 600 feet upstream from present crossing erected in 1890. Bridge will have total length of 1,500 feet. Low point of steel will be 28 feet above normal water level.

Arizona's state fair commission has set November 7 to 15 for 1942 fair.

Raymond Carlson, editor of Arizona Highways, has been presented Merit Award of year by Phoenix club of Printing House Craftsmen for having made major contribution to graphic arts and to Arizona through publication.

Honey is up to \$12.50 a case in Arizona, and has been classed by U. S. government as an "essential food" for winning war. Apiarists are asked to double production to help offset shortage.

CALIFORNIA

Cork Trees for California . . .

INDIO—Cork oak trees propagated in nurseries of state department of forestry will be planted in various localities of Riverside county. Crown Cork and Seal company, an eastern manufacturing concern, is subsidizing project to extent of supplying state forestry department with seed.

Marine Camp Named . . .

NILAND—Eleventh naval district headquarters have named new marine camp near here Camp Dunlap in honor of Brig. Gen. Robert Henry Dunlap. Completion of camp is expected within four or five months and will include barracks, an artillery range, and other facilities to prepare Devil Dogs for desert combat duty. Total cost of project is estimated at \$4,000,000.

Flood Problem Solution . . .

NEEDLES — A joint legislative subcommittee has outlined four steps necessary to successful solution of Needles' flood problem: first, Engineers of agencies concerned must agree upon method of curbing river; second, When agreement is reached city of Needles should take lead; third, City should send one or more representatives to Washington to contact California delegation in congress to urge immediate action, and fourth, In event that congress does not act immediately, committee should send resolution to Governor Olson asking flood-problem be included in call for an emergency session of legislature this spring or summer.

De Anza Expedition . . .

CALEXICO—Invitations to attend Calxico's International Desert Cavalcade were extended to direct descendants of Josefa Grijalva, who as a nine-year-old girl came with Capt. Juan Bautista de Anza on his second expedition in 1776 which resulted in founding of San Francisco. Descendants are Esperanza Carrillo, Eutimio Carrillo, Mrs. Edelfreda Pate and Mrs. Elena Reeves.

Melon Acreage Still High . . .

EL CENTRO—Cantaloupe and white melon acreage in Imperial Valley this season is only slightly lower than 19,641 acres harvested in 1941, amounting to 17,931 acres. Produce companies of large operations have 14,797 acres under contract and independent farmers have 3,125.

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Date Crystals

... A Delicious, Healthful, Crunchy - Crisp Date - Food Product ... Economical to use. Made from choice tree-ripened dates ... contain 80% natural fruit sugar—energizing but not fattening—adaptable to a wide variety of uses.

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No. 450D
1 1/2 lbs. Shield's Fancy Dates; 1 1/2 lbs. Shields Date Crystals, with complete recipe folder. (Date Sugar may be substituted for either of above items.)
Delivered in U. S. A. \$1.38

Write for complete price list of dates and desert fruits.

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Sugar Substitute . . .

INDIO—Date sales should be definitely influenced by shortage of cane and beet sugar comments Charles H. Collard of sixth agricultural association. Dates are already being pushed as a tasty and healthful substitute.

Cotton Yield Large . . .

BLYTHE—Palo Verde valley cotton producers have established a record short staple cotton acre yield comparable to world war days, according to figures tabulated by Phil Crow, agricultural inspector. Average acre yield was 436 pounds of lint, or 1,197 pounds of seed cotton per acre, a little short of a bale.

NEVADA

Forest Land Purchased . . .

LAS VEGAS—Federal officials have approved purchase of 884 acres of land in Lee canyon on Mt. Charleston for Nevada national forest, according to Congressman James G. Scrugham. Purchase will add almost 1,000 acres to 60,000 acres already held on Mt. Charleston, leaving only 4,000 acres in private control.

Museum Given Keepsakes . . .

CARSON CITY—Pioneer keepsakes of Abe Curry family are arriving at Nevada state museum as part of a collection donated by Mrs. Jenny Sturtevant Macmillan of San Francisco, a granddaughter of Abe Curry.

Chukkar Plants . . .

TONOPAH—Eighty-eight pairs of chukkar partridges have been purchased for planting in widely separated sections of Nye county. An additional 94 will be set out. Birds are said to thrive in this region.

Miss June Simon, assistant secretary of Las Vegas chamber of commerce has been named to succeed R. B. Griffith as secretary.

Substitute teachers are needed at Las Vegas states Harvey Dondero, deputy superintendent of public instruction.

NEW MEXICO

Selling Defense Bonds . . .

GALLUP—Indian dancers of Jemez pueblo are helping Uncle Sam sell defense bonds and stamps. Sponsored by Santa Fe railway and U. S. treasury department, a dance team is touring nation's leading cities to stimulate America's interest in war efforts and bond buying.

Zuñi Indians Sell Horses . . .

ZUÑI PUEBLO—Largest horse sale here in recent years netted \$1,190. One hundred and seventy head of horses were disposed of by 155 Indian livestock owners.

Yucca Fiber for Rope . . .

DEMING—Southwestern yucca may produce a substitute fiber for jute, manila and sisal. Possibilities of that plant have caught eye of war production board and Senator Dennis Chavez has proposed a project for

New Mexico's desert. R. S. Chapman may produce large samples for study at a plant he plans to set up at Deming.

New Mexico's Cattle Growers' association elected Tom Clayton as president and chose Albuquerque again for a convention city.

UTAH

President Approves Center . . .

OGDEN—Presidential approval of an application from Ogden for an outright grant of \$56,000 for purchasing, remodeling and furnishing of American Legion chateau here as defense recreation center will mean an early start on project, city officials state.

Deer Invade City . . .

SALT LAKE CITY—Police of this city found themselves too busy. They were called out to protect 3,000 head of deer from humans and humans from deer, when unseasonal snows drove herd down from mountains to within five blocks of business district. Police said public needed protection because deer were traffic hazards "in same category as drunken drivers." At least one young cougar trailed down also, but met sudden death under wheels of an automobile.

Sugar Beet Maximum Sought . . .

PROVO—United cooperation toward securing planting and harvesting of maximum acreage of sugar beets in this area has been pledged by farmers, industrialists, business men and educators. It is part of "food for victory" drive.

Cortes Pawned His Wife's Jewels...!

More than 400 years ago, in 1536, Cortes pawned his wife's jewels for money to start Francisco de Ulloa on a search that failed to find the fabled seven cities of Cibola . . .

What Ulloa did find has since proved far more golden . . . he found the Colorado River—life's blood of what is now the great inland empire of the Imperial Valley, then a terrible desert wasteland.

Through the ensuing years the Imperial Valley underwent turbulent periods of exploration, settlement . . . DEVELOPMENT.

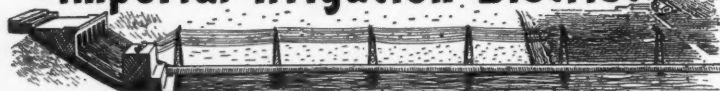
While the unending struggle of far-sighted and tireless men eventually curbed the great waterway, the once shunned and feared desert of the Imperial Valley was reclaimed . . . to become an

agricultural factory capable of producing on demand almost any agricultural product . . . A FACTORY THAT HAS NOW TAKEN ITS PLACE IN THE PLAN OF NATIONAL DEFENSE ALONGSIDE THE MUNITIONS, THE AIRCRAFT AND THE TANK FACTORY . . . producing millions upon millions of dollars worth of vital foodstuffs.

WATER AND POWER have made this possible . . . cooperatively owned water and power, provided through the IMPERIAL IRRIGATION DISTRICT. THE PEOPLE of Imperial Valley OWN this great water and power system . . . and its profits revert wholly to their benefits . . . DISTRICT GAINS are THEIR GAINS . . . and the whole is now devoted to the vital task of HELPING TO DEFEND AMERICA!

ONLY THROUGH THE LOYALTY OF IMPERIAL VALLEY PEOPLE CAN THIS GREAT PROJECT CONTINUE TO GROW AND THE TASK BE ACCOMPLISHED

Imperial Irrigation District



Use Your Own Power—Make it Pay for the All American Canal

Gems and Minerals

This department of the Desert Magazine is reserved as a clearing house for gem and mineral collectors and their societies. Members of the "rock-hound" fraternity are invited to send in news of their field trips, exhibits, rare finds, or other information which will be of interest to collectors.

—ARTHUR L. EATON, Editor—

NOTES FROM THE MINERAL BULLETINS

Polonium, a metal used in small amounts in spark plug wires, has a commercial value of about \$2,000,000 an ounce, when pure, 57,000 times that of gold.

Radium is found in such minute quantities that 10 tons of Canadian ore, or 150 tons of Colorado ore, or 20 tons of Congo ore are required to recover a single gram of radium.

A famous amethyst necklace belonging to Queen Charlotte was once valued at \$6,000, but today, on account of the abundance of rough material, would bring only about \$300.

Tourmalines were popularized when the dowager empress of China pronounced them sacred stones.

The first commercial production of andalusite in California was in Yolo county, 1921, by Dr. J. A. Jeffery, for the purpose of making spark plug porcelain.

Searles Lake gem and mineral society sold specimens at meetings to raise cash for purchasing candy and cigarettes to send the boys in camp at Victorville. Cards and magazines also were put into the boxes.

G. D. Martin, president of San Diego mineralogical society, states that the society is making a study of strategic materials and how to help the government find new sources. Reports on this subject were given at April 10 meeting in the natural history museum, Balboa park.

L. R. Douglas, Long Beach, displayed choice agate, jasper, and petrified wood at the Imperial county fair. He had some especially fine iris agate.

Mother Lode mineral society grieves over the passing of Elie L. Matheron, director and husband of Edna M. Matheron, secretary.

Sequoia bulletin for March contains a list of 97 members under the heading "Higraders."

Mr. and Mrs. Wendell Stewart were scheduled to address Sequoia mineral society April 9. Third Sunday in April was visiting day for the Sequoians. They met in Selma where they viewed collections and workshops of various members. A. L. Dickey arranged an exhibit under the name of Sequoia mineral society at the Visalia Hobby show.

Mrs. Richard Fischer of Grand Junction (Colorado) mineralogical society, reports that the group has been studying use of assay reagents, fusion products and the cupellation method of metal recovery. Tests are simple enough that they may be made in the field. C. E. Bond, assayer, supervises as each member performs the laboratory experiments. Grand Junction club has invited mineralogical society of Utah (Salt Lake City) and Colorado mineralogical society (Denver) to join with them on a field trip May 30-31.

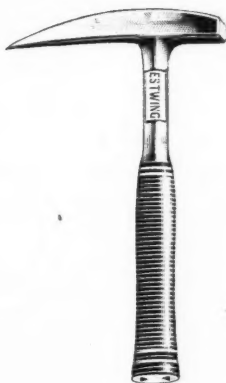
Current officers of Santa Maria rocks and minerals club are Ernest Edwards, president; John Weldon, vice-president; June Clevenger, secretary-treasurer. The society has placed an exhibit in the Santa Maria public library. Beth McLeod headed the committee in charge of arranging the library display. President Edwards is directing the preparation of two cases filled with local specimens for presentation to the elementary schools.

New State Bulletin . . .

State division of mines, department of natural resources, under direction of Walter W. Bradley, announces release of the July, 1941, issue of California journal of mines and geology, illustrated by photos, cuts and maps. This chapter is devoted primarily to a report on the mines and mineral resources of Nevada county. Maps are for sale separately, 25 cents, plus tax, at state division of mines offices, San Francisco, Los Angeles or Sacramento.

San Fernando Valley mineral society claims the youngest paid-up mineralogical society member in the United States. He is Bruce Perkin who celebrated his sixth birthday, March 19. He can name and identify between 50 and 75 minerals and knows the chemical formula of 15 to 20. He is the son of Willard J. Perkin, chairman of displays, whose hobby is crystals of which he has a marvelous collection from all parts of the world.

ESTWING MINERAL HAMMERS



Estwing UNBREAKABLE Steel and Leather Handle can't loosen, break or splinter. Resilient sole leather handle absorbs shock of blow. No danger of splinters or flying heads. Tempered point aids in removing specimens. Weighs 30 ounces and has 13 inch handle.

Polished Head—E-30\$2.50
Unpolished Head\$2.25

Add postage for 3 lbs.

These mineral picks will not be available for long as priorities have curtailed production. Our present stock will permit us to fill your order promptly.

CORRECTION OF PRICE ON 8x3 IN. DRUM SANDER . . .

Our April ad in Desert contained a typographical error and priced these popular DRUM SANDERS at \$3.00. Price should be . . .

NEW IMPROVED DRUM SANDERS 8x3 in.—No wedge to come loose\$3.75
Add postage for 4 lbs.

DURITE SANDING CLOTH FOR 3-in. DRUMS—120, 220, 320 grit
15 foot roll for\$1.00 plus postage for 1 lb.

BUY YOUR DIAMOND BLADES NOW . . .

Priorities have frozen all metal stocks suitable for the making of Diamond blades. Manufacturers have metal for less than 2 months normal business. After that inferior metals must be used and recharging of all discs must be resorted to in order to supply increasing demands for diamond blades. The following prices have been in effect since Feb. 1, 1942:

6-in.....\$3.90	8-in.....\$4.60	10-in.....\$ 5.90
12-in..... 7.50	14-in..... 9.50	16-in..... 11.90

Stocked with 1/2, 5/8, or 3/4 in. arbor hole. Also 1 in.

Send for YOUR FREE COPY of our profusely illustrated 44-page TENTH ANNIVERSARY CATALOG. Lists all types of gem cutting equipment and supplies. Also describes our large selection of "PREFORM CABOCHON BLANKS," slabs of semi-precious gem material, cut gems and . . .

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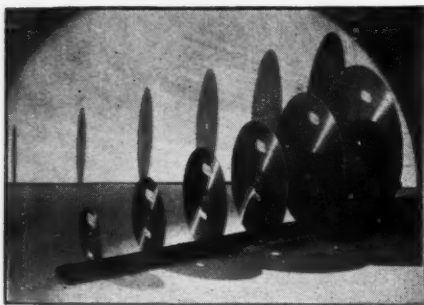
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8-in.....	4.60	14-in.....	9.50
10-in.....	5.90	16-in.....	11.90

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Be Sure to Specify Arbor Hole Size.

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and Supplies

Vreeland Lapidary Mfg. Co.

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The Arab Rockhounds, Coachella, California, enjoyed a field trip to the American Sulfate mine near Bartram. Mine owners guided the group through the diggings, and explained the process used in preparing the product for market.

Frank and Grace Morse, "rambling rock-nuts," report from Hot Springs, New Mexico, that as soon as weather permits, they plan to begin work on their new home and store-museum-shop in Bayfield, Colorado. About July first they will be "at home" for customers. They have spent the past months travelling in United States and Mexico collecting specimens.

Long Beach mineralogical society enjoyed a potluck dinner March 13. The group is endeavoring to locate a new meeting hall. Several Long Beach members field tripped to Kramer hills, Mojave desert, in search of petrified palm root, jasper, agate, chalcedony and desert air.

Professor Howell Williams, geologist of University of California was guest speaker at March 5 meeting of East Bay mineral society. He used kodachrome slides to illustrate his talk on the geological history of Crater lake. East Bay, like all other societies, is looking for new fields close to home in order to conserve tires.

Santa Monica gemological society gives new members a good start by donating specimens to each. W. Scott Lewis, Hollywood, illustrated with colored slides his talk on geology of the Mammoth lakes area at the March meeting of Santa Monica gemological society. He displayed some interesting spinner volcanic bombs from that region.

Paul Walker, Calimesa, talked on cutting and polishing gem stones at the April 2 meeting of Orange Belt mineral society, San Bernardino. A swap session was profitable for all members. April field trip took the group to the home of Ralph H. Ellis, Norco, to see his collection.

Cogitations . . .

Of a Rockhound

By LOUISE EATON

• There's nuthin' a rockhoun enjoys much more'n seein' somewun get bit by the rockitis bug 'n begin collectin'. He stans back 'n watches the convert scramble roun the landscape accumulatin' anything an' everything, an' smiles to hisself, knowin' that it won't be very long before the buddin' rockhoun will be lots more choosy. He feelz the thrill of findin' a good specimen 'n neglects his own collectin' jus to see his protégé pick up 'n lick rocks. 'N he mentally pats hisself on the back, knowin' that he has inoculated sumbody with the most healthful hobby there is.

Wimmin is quicker to show symptoms of bein' bit by the rockitis bug than men is, but somehow men gets the disease wurst.

• Therz no reason why rockhouns should fel sorry for theihselvz on account of not havin' tires 'r other transportation to distant fields. Stayin' home gives a chanct to get better acquainted with each other 'n to enjoy rocks already found. Swappin' is like wiz an excellent solution of the field trip problem.

-- SALE --

WULFENITE
MOTTRAMITE or **DESCLOIZITE**
AZURITE
DIOPTASE
CHRYSOCOLLA and **MALACHITE**
with Xls.

All of the above minerals in finest quality material, none smaller than 2x2 1/2, most of them much larger, choice . . .

\$2.00 — All 5 for \$5.00

Diopase on Wulfenite—the finest thing to come from Mammoth. I have 25 choice specimens, while they last \$3.50 each. **Ferrimolybdate on Wulfenite**, choice specimens, 2x3 and larger, \$2.50 to \$5.00.

Customers and friends: You will be just as well pleased with the above material as you were with the last month sale. Write me about choice Linarites, Leadhillite, Diaboleite or any of our choice Arizona Minerals.

Send ample postage as material has considerable weight.

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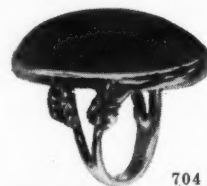
Autographed copies of my book "LEGENDS OF GEMS," incorporated with "HOW TO KNOW AND CUT THEM" . . . for only 50c in coin or money order. This is the regular dollar edition of 132 pages, 6x9, beautifully bound and illustrated.

Am going to do my part in helping the war effort, so I have leased my store and will be "out of business" for the duration.

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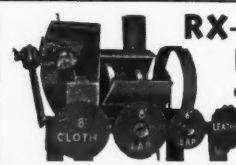
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On Highway 91, 10 Mi. East of Barstow
Two Miles West of Yermo California
E. W. SHAW, P. O. Box 363, Yermo, Calif.

I WILL BUY . . . SPOT CASH! . . .

GOLD SPECIMENS—(Must contain Visible Gold.) Also all forms of crystals, especially crystal clusters; anything colorful, sparkling or showy. WANT Gem-Stone rough or polished. Wood, Jasper & Agate in slabs only (polished or unpolished). I Quote No Prices. Set your own & send samples. Samples paid for or returned.
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SMITH'S AGATE SHOP

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Portland, Oregon

Edward Morris lectured on gold mining in California, past and present at the February meeting of Pacific mineral society. John Akers, president of Southwest mineralogists, talked on geology of Zion national park at the March meeting. Officers of the society are Dean De Voe, president; N. L. Martin, first vice-president; W. C. Oke, second vice-president; Maud Oke, secretary; Harold E. Eales, field chairman; R. S. Cotton, D. B. Pickett, directors. O. U. Bessette is in charge of the recently inaugurated swap table of Pacific mineral society.

• • •
Leroy Carlson, Tacoma senior student, has proven that a hobby can lead to a profitable vocation. Leroy, influenced by his grandfather, a mining engineer, began by collecting agates and other semi-precious stones. Later he learned to cut and polish. He and his father bought and made cutting and polishing machines and started to produce jewelry. Leroy worked for a while as a jeweler's apprentice. Now he is full owner of the Tacoma agate shop.

• • •
Kern county mineral society gave worthwhile mineral specimens as prizes for gem and mineral displays, at the first annual banquet March 9. Dr. M. J. Groesbeck acted as chief judge.

• • •
Ernest Chapman spoke on minerals of the New Jersey zinc region at March 17 dinner-meeting of Los Angeles mineralogical society. The club grab bag, specimens donated by members, is proving popular and successful. March field trip took the group to San Gabriel canyon and Kelsey mine for specimens of fluorite and barium.

• • •
Arthur C. Jessop took San Diego mineralogists on a 'round the world journey to mining localities and gem sources in his talk March 13. Clyde Scott and Harold Baker designed and made an onyx gavel which was presented to G. D. "Jack" Martin, president of San Diego mineralogical society.

• • •
Mrs. Jack Martin addressed Ramona, California, woman's club March 8 on the Amateur Rockhound, a practical lesson in rock hunting. On exhibit were kunzite, tourmaline, beryl, garnet and other minerals gathered in the vicinity.

• • •
Howard Kendall, Holtville, California, was awarded a certificate of special merit at Imperial valley county fair for his display of the first faceted gem stones to be entered in competition in Imperial county, California; also, for his superb craftsmanship on this occasion.

STRATEGIC MINERALS

CRYOLITE

Cryolite, a little known fluoride of sodium and aluminum, has suddenly jumped into a position of first rate importance, because of being entirely essential in the production of aluminum. Without it, in fact, the modern aluminum industry would be impossible.

Until quite recently, aluminum metal was so rare and expensive that it was considered merely a laboratory curiosity, and had never been put to any practical use. The easy fusibility of Greenland cryolite, which in small pieces will actually melt in the flame of an ordinary match, suggested it as a possible flux for bauxite, the best ore of aluminum, whereupon it was found that the heretofore unmeltable metal could be taken from the ore easily and cheaply.

Although vast amounts of cryolite have been used in the aluminum industry of the United States, no commercial quantity of the material has as yet been discovered in this country. The entire present supply comes from the mines at Ivigtut, Greenland, a spot all too close to the war zone.

DO YOU KNOW THAT SALT—

- Is formed of sodium, a very active metal, and chlorine, a very poisonous gas?
- Is normally white or transparent?
- Has a hardness of only 2.5?
- Is much lighter than most common rocks, such as quartz or limestone?
- Forms cubes, basket cubes, or flattened cubes when it crystallizes?
- Is not the only mineral found in salt water?
- Is necessary to sustain most human and animal health properly?
- Is one of the finest remedies for ailments caused by heat?
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THE ROYAL GORGE, history and geology, an illustrated booklet with maps and drawings, locating 54 minerals and many fossils for touring collectors. It tells in detail how dinosaur remains are traced from minute fragments in the sand to major finds on the hillsides. Postpaid 50c. F. C. Kessler, Canon City, Colorado.

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SPECIAL—10 Colorado Mineral Specimens for \$1.00 F. O. B. Boulder. Cash with order. L. E. Bagg, 1318 Pearl St., Boulder, Colorado.

BEAUTIFUL AMETHYST and citrine quartz crystals from Uruguay, clusters from 50c to \$7.00. Fine chrysocolla specimens at \$2.00 per pound. Green garnets in matrix, from 25c to \$3.00. Postage extra. Sales tax in Calif. **JACK'S ROCK SHOP,** 2819 A St., San Diego, Calif.

QUARTZ CRYSTALS ARE IN DEMAND

Desert rock collectors will be interested in the following letter from federal sources regarding the need for quartz crystals. The letter was received by the editor of the Mojave County Miner at Kingman, Arizona:

Dear Sir:

It would be appreciated if you would run a brief story in the Miner to the effect that the country is badly in need of quartz crystals for use in certain army and navy instruments.

For your information, most of the rock crystal in peace time comes from Brazil, but for obvious reasons, we are much interested in developing a domestic source of supply as rapidly as possible.

I fully realize that none of the mines in the Oatman and Cerbat districts are prolific producers of quartz crystals, but in view of the fact that acceptable material is worth from \$1.00 to \$10 per pound, it may be that some of the local operators and leasers might be interested in saving any quartz crystals encountered. Acceptable material should preferably be clear and as free from flaws as possible. Only the hexagonal or six-sided crystals, greater than one-fourth inch in diameter can be considered. Crystals containing inclusions of iron or twin crystals will not be of interest.

Very truly yours,

WATT L. MORELAND

Manager,

Contract Distribution Branch

Vern Cadieux was reelected president of the Santa Monica, California, Gemological society at its first meeting in April. C. D. Heaton was reelected first vice-president and other officers were named as follows: Clarence Harter, second vice-president; Harry Stein, treasurer; Helen Richmond, secretary, and Sadie Sherman, corresponding secretary. The members voted to raise their dues, to provide better entertainment the coming year, and to hire buses when long field trips are planned.

Mojave Mineralogical society has been accepted for membership in the California state federation.

Speakers scheduled for the three April meetings of the Mineralogical society of Arizona are as follows: April 2, Chas. A. Diehl; April 16, William B. Colburn, curator of mineralogy at Cranbrook institute; April 30, C. E. Young.

New president of the Snake River gem club of Ontario, Oregon, is H. L. Arment. Mrs. Fay Ingraham is secretary. The club meets the third Tuesday each month, alternating between Ontario and Payette, Idaho.

Mineralogical society of Utah went into the trilobite fossil area north of Brigham City, for its March 15 field trip.

Julian Smith was scheduled to address the East Bay mineral society of Oakland April 16 on the subject of Crystallography.

Twelve members of Long Beach Mineralogical society recently went into the Chocolate mountain area and found excellent cutting material in the agate and chalcedony fields. The society's next field trip is planned for Leadpipe springs.

Mines and Mining . .

Las Vegas, Nevada . . .

Despite the fact federal officials have expended thousands in an effort to find and develop America's mineral resources, the country isn't so much better off, reports the Nevada state Mining Record. Crux of the problem appears to be failure of federal officials to find a substitute for prospectors, small developers and small company financiers. Engineers appear able to make low-grade workings pay after discovery, but it's the prospector who finds diggings in the first place. Production of new metal from newly found deposits still falls short of needs.

Bingham, Utah . . .

Copper production at Bingham open-cut mine has raised Kennecott's total to an all-time high, reports E. T. Stannard, president. All Kennecott's domestic mines now operating on a 24-hour basis have raised production above normal capacities of present facilities to near absolute limit.

Winnemucca, Nevada . . .

In Arizona and California mountains there is sufficient Celestite to last more than two and a half centuries, based upon 1940 consumption. Celestite is a strontium mineral used to make tracer bullets, military flares and similar pyrotechnics requiring a dazzling red light.

Goldfield, Nevada . . .

Production of tungsten at Getchell mill—famous gold producing plant—is under consideration. Tungsten ore bodies several miles from main gold bodies owned by the company have been under development in a small way. Tungsten is not found in the same deposit as gold, but is found on the same contact, being present at points from one and a half to eight miles from Getchell mill.

Safford, Arizona . . .

Morenci copper production plants will have an increased water supply to permit full-capacity operation. The U. S. water department is reported to have instructed Gila Valley irrigation district officials to allot "such waters of San Francisco river and Eagle creek as may be needed."

Albuquerque, New Mexico . . .

Freight charge reductions totaling 40 cents per ton for hauling iron ore from mining operations in Lincoln county to Pueblo, Colorado, announced by two major railroads may permit immediate development of iron strip mining operations in New Mexico's Lincoln county.

Las Vegas, Nevada . . .

Some time this month, Basic Magnesium, Inc., expects to have its first unit of a 2,000 ton mill completed and in operation, it has been announced. About 7,000 workmen are engaged in construction and installation work. Water started flowing into reservoirs serving Basic early this month.

Beatty, Nevada . . .

For the first time since the world war, development work is being carried on at the Honolulu-Big Horn zinc-lead mine in the Panamint range, seven miles southeast of Ballarat. Increased prices for zinc and lead are said to be responsible.

Reno, Nevada . . .

While war production board rulings affecting gold and silver mines will not be rescinded, Dr. Wilbur A. Nelson, mining administrator of WPB states that producers of strategic metals will be able to obtain priorities for mining equipment. "No one producing any needed amount of strategic minerals, including copper, lead, zinc, and antimony—even though he also produces gold and silver in excess of 30 percent—will be denied priority rating under orders, but must present facts to prove the case so that it can be reviewed," Nelson declared.

Washington, D. C. . . .

Evolving a new prospecting method, the Geological Society of America reports discovery of an electronic ray which makes rocks talk and which promises to assist in locating important strategic war minerals. Already this ray has detected manganese, copper and tungsten in laboratory tests at Massachusetts Institute of Technology. The method is made possible by cyclotron, the atomic power machine which produces neutron rays.

Banning, California . . .

San Bernardino valley has been selected as site for a \$40,000,000 steel plant, which will use iron deposits in Eagle mountain in eastern Riverside county. This project represents a \$50,000,000 investment. It will employ 500 men in operating plant.

Battle Mountain, Nevada . . .

War production board officials have announced plans for a new manganese ore dressing mill to be constructed at Battle Mountain and to have a daily capacity of 250 tons. Annual output calls for 20,000 tons of manganese concentrates. Plant would be part of 10 government-financed reduction centers contemplated for various points in Southwest. Mining men in this section believe ores would be obtained from deposits at Black Eagle mine and probably Black Rock mine.

Reno, Nevada . . .

Discovery of tin deposits which may be of commercial value in the Rabbit Hole placer workings near Battle Mountain is considered as having unusual importance. Professor Walter Palmer of Nevada analytical laboratory at the university accidentally found tin in a sample ore to be assayed for mercurial content. U. S. bureau of mines officials not only verified find, but added that it showed 3.98 percent tin. Only one-half of one percent of tin is needed for successful working, it is said. Gravel carrying tin are declared to extend over at least a square mile.

Denver, Colorado . . .

Mining men from several states meeting here a short time ago made plans to carry a proposal for higher priority ratings to Washington. A recent war production board order excludes gold and silver mines from preferential priority ratings for purchase of machinery, supplies and equipment. Senator Pat McCarran of Nevada at the meeting stated that he saw in gold and silver mines priority rating a grave threat to that industry, if not to the entire economic system of the country.

The Desert TRADING POST

Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—actually about 1 1/3 cents per thousand readers.

LIVESTOCK

BURRO WANTED—One or pair of well-broken burros. Not too old. Good home. Address Marshal & Tanya South, c/o Desert Magazine, El Centro, Calif.

KARAKULS producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

KARAKUL SHEEP—For profit, for investment, as a business or as a sideline, join with many others and raise Karakul Fur Sheep. Authentic information. James Yookam, 1128 N. Hill Ave., Pasadena, California.

MISCELLANEOUS

WANT TO BUY CANARIES WHOLESALE, Mrs. A. P. Boblet, 11025 S. Vermont, Phone PLeasant 0234, Los Angeles, Calif.

12 BEAUTIFUL perfect prehistoric Indian Arrowheads, postpaid for a dollar bill. Catalog listing thousands of other relics free. Caddo Trading Post, Glenwood, Arkansas.

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6 OR 8 EXPOSURE ROLL enlarged to mammoth Rancho size, 25c; or 16 small prints from roll, 25c. **RANCHO PHOTO**, Dept. EM, Ontario, California.

MAPS

BLACKBURN MAPS of Southern California desert region. San Bernardino county 28x42 inches \$1.00; San Diego county 24x28 inches 50c; Riverside county 50c; Imperial county 19x24 inches 50c; Yuma and Gila river valley 17x27 inches 50c. Postpaid. Add 3% sales tax in Calif. **DESERT CRAFTS SHOP**, 636 State St., El Centro, California.

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By RANDALL HENDERSON

I HAVE been greatly interested in the project for placing Japanese evacuees from the Pacific coast on the Colorado River Indian reservation near Parker, Arizona.

That is a little known desert valley with which I happen to be quite familiar. During the winter of 1911-12 I worked on the U. S. land office surveying crew which established the section and quarter corners there.

It is a fertile valley, probably one of the finest tracts of undeveloped land in the West. Until Boulder dam was completed much of the area was subject to annual overflow. But with the river now under control the way is open for highly profitable farming under irrigation.

The land belongs to the Indians but they have never cultivated more than 10,000 of the 90,000 acres in the valley.

If the Japanese could be colonized there under such a plan as Mexico followed in developing the lands in the delta of the Colorado river, it would seem to offer a happy solution for the problem of evacuees. In the Colorado delta, American farmers were invited to clear and level the land and install an irrigation system in return for a three to five-year lease on the land. At the end of the lease the land was returned to the Mexicans in a fine state of cultivation. The reclamation of the land had cost them nothing, and in the meantime the American farmers had made a good profit on their leases.

Parker valley is remote enough to offer a sanctuary where the Japanese can neither disturb nor be disturbed by America's war program. Some initial financing probably would be required to put the land in cultivation, but eventually they should be able to repay every cent and make a fair return for their work. And at the end of the lease period the Indians would have 90,000 acres of highly developed land to farm or lease as they wished.

I would suggest that here is an opportunity to turn a war liability into an asset in which Indian, American taxpayer and Japanese would all share in the benefits.

* * *

Late in March I shouldered my packsack and hiked down into northern Arizona's Havasu canyon with members of the Sierra Club of California on their annual Easter week trek. No mail, no telephone, no radio, no newspapers for five days. We were not even concerned about the restrictions on rubber and other civilized gadgets—because we were six hours by trail from the end of the nearest road.

There are no war planes in the sky over Havasu. The song of canyon birds is the only sound that breaks the silence, and this is one of the places where you actually can see the rock crust of the earth in the process of creation.

It is not easy in these hectic days to get away from the job for

a week's vacation—and yet I would suggest that it is more important now than ever to keep contact with Nature's world. A few days in the heart of the desert wilderness is a powerful restorative for faith that has become jittery in the face of things we thought couldn't happen. There's nothing wrong with the Good Earth. Greed and vanity have brought grievous trouble to the human family—but since my trip into the Havasu my faith is stronger than ever that out of this conflict will come a finer understanding among men.

* * *

I've far exceeded my monthly tire budget during the last 30 days—but the two trips I made were worth it, even if I have to put the car in the garage for the next two months and walk.

I have already referred to my trek to Havasu canyon. The next issue of Desert Magazine will carry a more detailed story of that experience.

The other excursion was into the Mojave desert where my destination was the old mining camp of Randsburg. Along the way I spent a few hours with old desert friends on juniper-covered Baldy mesa near Victorville—Pat and Ethel Caughlin who late in life departed from the big city where they had lived, invested their meager savings in a little desert homestead and have found independence and happiness raising game birds for the market—Helen Pratt at the Wagon Wheel ranch whose hobby is tanning snakeskins (Desert will have a story about her later)—and W. A. Chamberlain who came to the desert for his health, lives alone in a spotless little cabin and creates beautifully finished lampstands, bookends and other useful novelties from a certain type of Joshua tree deadwood. He is one of the finest craftsmen I have ever known, a kindly understanding man to whose humble doorway come visitors from all over the world.

Real desert people, these!

Randsburg is an old mining camp that refused to become a ghost town. Some of the old mines are no longer producing, but it is a highly mineralized area and in these days when prospectors are finding wealth in other forms than gold and silver, there is much activity in the camp.

The old miner's shacks are unpainted and ugly, the streets are crooked and there are few sidewalks—but the hearts of its people are warm and friendly. And after all, that is what really counts. You won't be in Randsburg long before you meet either Paul Hubbard, editor of the newspaper, "Worthy" who owns the Cottage hotel and who is a mother to the whole camp, or Kent Knowlton who tells fabulous yarns and really knows his minerals. And if you are fortunate enough to meet all three of these personages, I will promise you will always recall your visit to Randsburg with pleasure.

BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

THERE'LL BE FEWER BOOKS DURING WAR EMERGENCY

There is no law against hoarding books. Now that publisher's barometers indicate stormy weather ahead on travel, adventure, natural history and illustrated books due to the limitations on paper, bleaching materials, strawboards, metal for plates and chlorine for color plates, we should be taking stock of our private libraries. So-called "permanent" books will be giving way before long to smaller books with jacket-like covers, narrow margins and small type. Publisher's lists have already suffered drastic cuts. Books for pleasure must give way to books on aeronautics, navigation, resources, the Far East and to regular text books. However it is not too late to plan your desert library and to discover which books you will need to carry you through the national emergency.

NAVAJO PLACE NAMES IN RECENT VOLUME

Travelers and students, as well as government employees, have access to a guide book and gazetteer of the Navajo country and adjacent regions. In compiling *DINE BIKEYAH* (The Navajo's Country), Richard F. Van Valkenburgh had the assistance of members of the Indian and park services and many others familiar with the Navajo country of Arizona and New Mexico. This 200-page mimeographed handbook was edited by Lucy Wilcox Adams and John C. McPhee, and published in 1941 at Window Rock, Arizona, by the Navajo service, office of Indian affairs, department of interior.

The most important Navajo place names are listed in alphabetical order, the English names being supplemented by Indian or Spanish names with translations. Combined with the identifications is a wealth of material pertaining to geography, history, archaeology, legend and custom. Indian pueblos and trading posts, landmarks, historical sites, geographical features, various Indian tribes are included among the items.

DINE BIKEYAH has been made even more useful for the layman by addition of a key to Navajo alphabet and pronunciation. This is the approved Indian department system, as worked out by La Farge, Harrington, Young and Kennard.

The area map and 17 detailed quadrangle maps are the work of Navajo artist Charles Keetsie Shirley.

MEMORIAL BOOK FOR PIONEERS OF THE WEST

A score of famed trails carried civilization into the West on a tremendous march that led to a score of new stars in our flag. In *WESTWARD AMERICA*, Howard R. Driggs reclaims these old trails for posterity. In 40 chapters of humanized history he tells the story of how the Santa Fe, the Oregon and the Mormon trails were opened; how the "White Man's Book of Heaven" was carried to the Indians; how the American form of government was established beyond the Rockies; how the western deserts were made to "blossom as the rose," and how the Handcart companies, the Pony Express and the Overland stage revealed our western wonderlands.

The stories have been told, individually and collectively, many times in the past, but in this retelling the author has left political and social history to others while he concentrates on the personalized history, the dramatic, stirring

times and the episodes that literally moved America westward.

The significant roles played by Indians, trappers, pony riders, stage drivers, pioneer telegraph operators, prospectors, cowboys and soldiers are included in the epic—true stories of the makers of history. In his foreword Mr. Driggs says, "These stalwart, youthful-spirited Americans went forth on their own into the constructive conquest of the vast domain that lay between the Father of Waters and the Pacific. It was at once their challenge and their opportunity."

WESTWARD AMERICA was written as a memorial volume to "the heroic pioneers." But it comes, too, as a memorial to a fast disappearing era in bookmaking. Profusely illustrated with 40 full-page color reproductions of William H. Jackson's paintings, vibrating with the drama and spirit of the old West, it will undoubtedly be collected and cherished as one of the last of the pre-priorities books, when good paper, good color plates and good bindings were still possible. It is particularly comforting to know that this all-American volume is of such permanence with so many books of temporary quality being scheduled for the duration of the war. Only by such books as this can the heritage of America be preserved.

G. P. Putnam's Sons, New York, 312 pp. Index, 40 illustrations. \$5.00

—Marie Lomas

ALLEN STREET RELIVES IN BILLY KING'S TOMBSTONE

Tombstone had a reputation. Yet it all came from the northside of Allen street, abuzz with life night and day, relates C. L. Sonnichsen in *BILLY KING'S TOMBSTONE*. Allen street, across the dusty dirt presented a different story. There the genteel women did their shopping, scrupulously avoiding more than a side-long glance at the other side, wherein lived, worked and played the now almost legendary characters of Tombstone.

It is these persons—Buckskin Frank Leslie, Buck Alvord, High-Rolling Dick Clark, Madame Moustache, Nosey Kate, Lizette and Sheriff John Slaughter—who play the leading roles in *BILLY KING'S TOMBSTONE*. In its pages the author capably gives an informal history of the frontier world as it existed. Mr. Sonnichsen gained his facts from Billy King and these he verified through all sources possible today. Billy, himself, couldn't be avoided in any such writing as this. Now a resident of El Paso, he saw and lived among all the many characters which contributed to the romance of Tombstone. Fifty years ago he, too, held sway as a Tombstone high-roller and saloon-keeper.

Gamblers, dance-hall girls, cowboys, gunmen, sheriffs, painted women and saloon-keepers play their blustering roles as knights and ladies of this saga. It is a refreshing study of the real Old West. This plus some downright good humor and a number of old-time pictures taken by Fly, the photographer of Tombstone, of nearly all the characters make it very readable. Undoubtedly there will be many who will pick this book up out of idle curiosity, but there will not be many who will put it away until they finish the 233 pages depicting life as it was in Tombstone.

The Caxton Printers, Ltd. \$3.00. Caldwell, Idaho.

—Harry Smith

—DESERT— BOOKSHELF

Listed below are a few of the books now available from the Desert Magazine's Book Department.

For a more complete list of Southwestern books available, write for price list.

THE DESERT. Van Dyke. A classic description of the mystery and color of the desert. Seen through the eyes of an artist and naturalist, the deserts of Southern California, Arizona and Sonora become clothed with a magic form. \$3.00

DEATH VALLEY, THE FACTS. Chalfant. Standard book, covering geography, climatology, water, geology, mining, plant and animal life. Revised third edition. \$2.75

HERE'S DEATH VALLEY. Glasscock. Vivid, sparkling history of Death Valley, built around its colorful characters. Rates a top place in annals of the old West. \$3.00

DEATH VALLEY. Complete and Beautifully illustrated guide, Federal Writers Project. Geology, plant and animal life, history, followed by series of 20 tours with detailed information for travelers. Paper bound. \$1.00; Cloth \$1.75

THE WEST IS STILL WILD. Carr. Entertaining tour of New Mexico, Arizona and Southern California, dipping into the adventurous past and portraying an array of colorful characters. Includes the Indian Country, Enchanted Mesa, Carlsbad Caverns, Santa Fe and Taos, Boulder Dam, Death Valley. \$2.50

GOLDEN MIRAGES. Bailey. Tales and legends of lost mines in the Southwest \$3.00

PILLARS OF GOLD. Edgerton. Authentic, absorbing historical novel about the goldfields of the Colorado river area during the 1860s. "Not since Harold Bell Wright's *Winning of Barbara Worth* has a novelist presented both the glamor and the grim reality of the desert region so accurately." \$2.50

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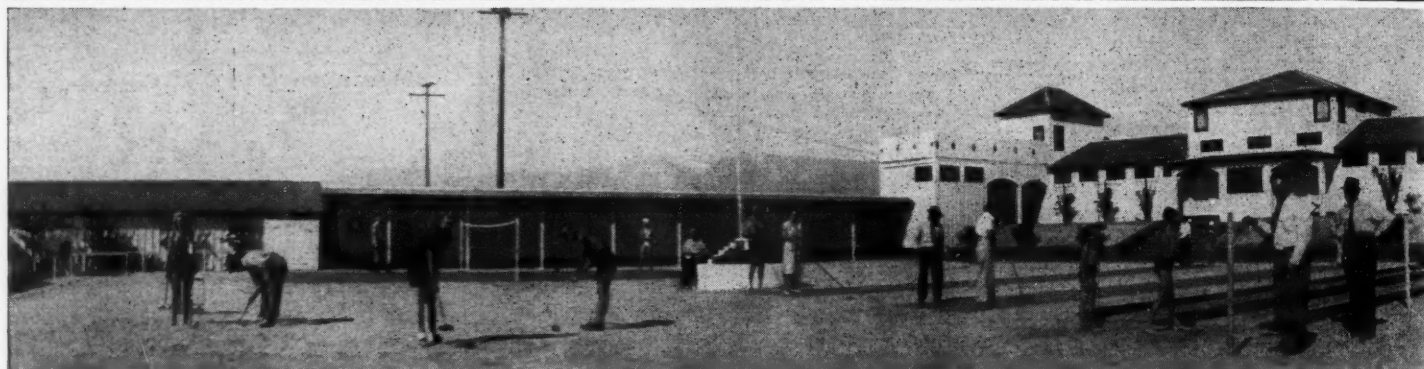
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differs from any subdivision heretofore laid out anywhere in the West. In principle, this is not merely a subdivision. This property carries with it features for the benefit of mankind, and it is almost impossible to describe the numerous advantages that it possesses.

Desert Hot Springs was placed on the market in January, 1940. Since that time, about five hundred lots have been sold and about one hundred homes are erected.

THERE MUST BE A REASON! Sure, you can look the country over and you will not find another spot where you have access to a high grade of hot curative mineral water such as we have at Desert Hot Springs.

In addition to this water, there is no better desert climate on any desert. The elevation of about 1300 feet gives you an unobstructed view of the snow capped mountains surrounding this district. The valley below is an ever changing sight. The City of Palm Springs, 10½ miles distant, is in plain view. Palm Canyon and the Palms-to-Pines Highway are visible. Yet Desert Hot Springs is only 6 miles off U. S. Highway 99 and the main line of the Southern Pacific Railroad; and only 112 miles distant from Los Angeles.

YOU SHOULD INVESTIGATE this thriving community if you are seeking health, relaxation, outdoor sports and exercise. You can find everything you could wish for, even an opportunity to start in any line of business and grow with Desert Hot Springs.

The so-called Desert Cabin Sites are in reality residential lots, 50x130 feet each. Water mains are installed throughout the entire Tract. The water is furnished by the Desert Hot Springs Mutual Water Co., a California Corporation.

Electrical energy is installed throughout the Tract and furnished by the California Electric Power Co. The service is just as complete as in any Metropolitan area.

Where you can buy a lot, build a cabin to your own taste for a little more than it would cost for an annual vacation. Where you have all modern conveniences—domestic water, electricity, two cafes, stores, lumber yard, weekly newspaper (The Desert Sentinel). (Motels and Trailer Courts in the making.)

SEE DESERT HOT SPRINGS! Judge for yourself. You owe this trip to yourself and your family.

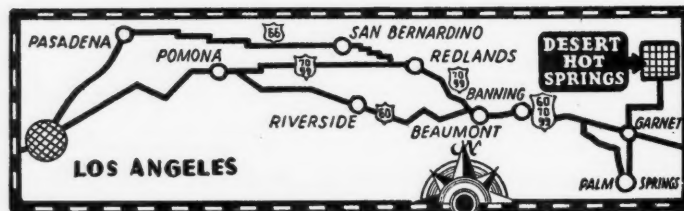
When you come, bring your bathing suits!

Write for further information, maps and descriptive literature on Desert Hot Springs. Also Guest Cards!

ACREAGE . . .

Have any amount of acreage with an abundance of highly mineralized water, ranging from 120°F. to as high as 180°F., suitable for Hotels, Rest Homes or Health Establishments of various kinds.

Something That Cannot Be Had Elsewhere



6 MILES
NORTHEAST OF
GARNET FROM HY. 99

L. W. COFFEE, Subdivider

347 Douglas Building

257 South Spring Street

MUtual 8459

LOS ANGELES, CALIFORNIA

10½ MILES
NORTHEAST OF
PALM SPRINGS